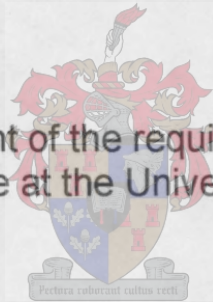


The Use of Inclusive Opportunities to Promote Positive Attitudes Towards Inclusion in Physical Activities

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Thesis presented in fulfilment of the requirements for the degree of Master in Sport Science at the University of Stellenbosch



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DECLARATION

I, the undersigned, hereby declare that the work contained in this thesis is my own original work and has not previously in its entirety or in part been submitted at any university for a degree.

SUMMARY

The purpose of this study was to determine whether or not inclusion opportunities would improve the attitudes of children with disabilities and children without disabilities towards inclusion in physical activities.

A total of 75 pre-and 71 post-test questionnaires were completed. Thirty-nine pre-test and 37 post-test questionnaires were completed by participants with disabilities and 36 pre-test and 34 post-test questionnaires were completed by participants without disabilities.

All participants were pre-tested by means of questionnaires presented to them prior to each inclusion opportunity and were post-tested by means of questionnaires presented to them on the day of the inclusion opportunity, once the event was completed.

All questionnaires were developed by the researcher and have not been used previously for any other study of this kind.

Results revealed that:

1. Attitudes in both the participants without disabilities and participants with disabilities changed after attending the inclusion opportunities.
2. There was a reduction in negative attitudes in both participating groups towards inclusion in physical activities.
3. Participants associated the inclusion opportunities with positive categories such as enjoyment, friendship and play.
4. There was a positive response to suggestions of participation in future inclusion opportunities.

Based on the results determined, it was concluded by the researcher that inclusion opportunities do improve attitudes of children with and children without disabilities towards participating in inclusive activities, specifically physical activities. Further research in South Africa should however be conducted to determine the long-term effects of participation in inclusion opportunities on children with and without disabilities.

OPSOMMING

Die doel van hierdie studie was om te bepaal of inklusiewe geleenthede die gesindhede van kinders met gestremdhede en kinders sonder gestremdhede kon verbeter met betrekking tot die beginsel van inklusiewe onderrig.

'n Totaal van 75 pre- en 71 post-toetse is voltooi. Nege en dertig pre-toetse en 37 post-toetse is deur deelnemers met gestremdhede voltooi en 36 pre-toetse en 34 post-toetse deur deelnemers sonder gestremdhede.

Alle deelnemers is vooraf getoets deur middel van vraelyste wat voltooi is voor die aanvang van elke geleentheid. Na die voltooiing van elke geleentheid het alle deelnemers weer 'n vraelys voltooi. Die vraelyste is deur die navorser ontwikkel en is nog nooit voorheen gebruik vir hierdie tipe studie nie.

Resultate van hierdie studie het aangetoon dat:

1. Gesindhede van kinders met gestremdhede en van kinders sonder gestremdhede het verbeter na deelname in hierdie geleentheid.
2. Daar was 'n vermindering in negatiewe houdings van kinders met gestremdhede en kinders sonder gestremdhede na insluiting in hierdie gemeenskaplike aktiwiteite.
3. Deelnemers het hierdie gesamentlike geleentheid geassosieer met positiewe ervarings soos genot, speel en nuwe vriendskappe.
4. Daar was positiewe voorstelle van deelname in verderer gesamentlike geleentheid.

Na aanleiding van hierdie resultate, is dit duidelik dat inklusiewe fisieke aktiwiteitsgeleentheid die gesindhede van kinders met en kinders sonder gestremdhede, positief van beïnvloed. Verdere navorsing om die langtermyn effek van inklusiewe geleentheid op Suid-Afrikaanse kinders met en sonder gestremdhede te bepaal, sal egter steeds nodig wees.

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Love gives naught but itself and takes naught but from itself.

Love possesses not nor would it be possessed; for love is sufficient unto love.

- Kahlil Gibran

CHAPTER ONE

STATEMENT OF THE PROBLEM

"Can I play too?" This is the title of a book authored by Sheila Jowsey (1992), which discusses approaches to including children with disabilities successfully in regular classroom and physical education settings. In the past, various terms have been used to describe the trend towards bringing children with disabilities into regular school environments. Among these terms, the words integration, mainstreaming and inclusion have been most popular. Each of these words indicates a step in the process of bringing children with different movement abilities together.

Branford (1992) explains the term integration as meaning to combine into a whole, complete by the addition of parts, bring or come into equal membership of society, a school etc, desegregate especially racially. Downs (1995:31) used the Oxford English Dictionary to indicate that "to integrate" means "to be made up of parts". He interprets integration as the placement of children with disabilities into a regular setting with the understanding that the children may be integrated but not necessarily included.

According to Downs (1995), "mainstreaming" describes the process of integrating people with disabilities into regular physical activity settings. This term originated in America where the implementation of Public Law 94-142 indicated that children with disabilities were also entitled to the same opportunities as were children without disabilities in the least restrictive environment. Mainstreaming means to bring into the principle areas of flow (Fowler & Fowler, 1969).

According to Downs (1995) the Oxford English Dictionary defines inclusion as "to comprise or embrace, as part of a whole", while Fowler and Fowler (1969) indicate that it means "put into a certain category or include in the limits stated". Inclusive programmes therefore should mean that all students are provided with the opportunity to participate in physical activities at the appropriate level and with appropriate support. Block (in Downs, 1995) states that "Inclusive physical education is a place where individual differences are not hidden or ridiculed but rather shared

among students who learn to respect each other's limitations and unique abilities"(p. 32).

Various terms have been used to refer to persons with disabilities. The following three have been used commonly in the past, although the meanings are slightly different:

Handicap according to Branford (1992) indicates physical or mental disability, things that make progress or success difficult; Sherrill (1993) refers to handicap as "a condition produced by societal and environmental barriers".

Disability according to Downs (1995) is "any restriction or lack of ability to perform an activity in the manner or within the range considered normal for a human being"(p. 26), while Fowler and Fowler (1969) refers to disability as permanent physical or mental incapacity preventing action, whilst Sherrill (1993) states a disability as the loss or reduction of functional ability and/or activity.

Impairment as explained by the World Health Organisation (Downs, 1995) states a disability as the loss or abnormality of psychological, physiological or anatomical structure or function whilst Branford (1992) perceives it as 'damage, weaken, make worse'. Sherrill (1993:32) defines it as "any disturbance of, or interference with, normal structure and function of the body". As a result of such an impairment, many children with a disability in South Africa have attended schools which specialise in the education of persons with disabilities, otherwise known as LSEN (Learners with Special Educational Needs) schools. These specialised schools are generally well equipped to deal with such individuals and the staff also tends to be trained in this field.

Kozub, Sherblom and Percy (1999) discussed the issue of learner diversity in education (physical education) and physical activity environments. They stated that the diversity of learners in inclusive classrooms presents challenges to teachers. In order for the teachers to accommodate this diversity suggestions were made that included better teacher preparation, careful activity programming and adequate support and services. This is based on the suggestion that all children with disabilities have the right to participate in physical activities together with children

without disabilities. Naturally, modifications will have to be made to the school curriculum to ensure that all children are treated fairly and appropriately.

Why do persons with disabilities experience difficulties when it comes to being accepted within communities, educational centres and work environments? There might be many reasons, which could include ineffective inclusion methods, misinformation, false perceptions and lack of social understanding. A lack of opportunities for the proper exposure and education of persons with disabilities might also have contributed to the situation. Without support from related organisations, funding from the governmental, private sectors and post-education work opportunities for such persons, no change will take place in order to alleviate this problem.

According to Kozub, Sherblom and Percy (1999) effective instruction and inclusion in physical education can be defined as managing all children properly and decreasing disruptions in the activity setting in order to increase time for learning. As a result the time available for participation in activities can be structured appropriately and activities can be designed to match the abilities of the children involved. In this kind of environment, optimal learning can take place.

Inclusion in education has been identified as an objective in South Africa. Strategies are being considered to properly support and include persons with disabilities in regular environments. Some schools and tertiary institutions have been enrolling persons with disabilities in an attempt to embrace the process of inclusion. Many people are affected by such changes, from the teachers, principals and parents to the learners/students with and without disabilities. These changes are affected by current attitudes, some positive and some negative. In order to promote successful inclusion, means for the targeted development of positive attitudes must be discovered and implemented.

1. PURPOSE OF THE STUDY

The purpose of this study was to determine whether participation in a specifically-designed physical activity programme could affect attitudes towards the inclusion of children with physical disabilities in regular educational environments. The programme to be used was based on the provision of opportunities for children with

and without disabilities to participate together in selected situations related to physical education and physical activity content.

2. SIGNIFICANCE OF THE STUDY

It is essential to identify methods of promoting the development of positive attitudes towards individuals with disabilities as well as towards their inclusion in everyday settings. Physical activity (physical education and sport opportunities in schools) can play a vital and positive role in making inclusion a successful contribution for all South Africans. Without programmes to provide persons without disabilities with the correct information, false opinions with regards to the abilities of persons with disabilities may be formed. These misunderstandings can be negative influences on employment, acceptance within societal structures, acceptance within educational settings, acceptance within sporting structures as well as the general well being of persons with disabilities.

This study will attempt to identify methods that can facilitate positive attitudes toward inclusion among children with and without disabilities. Those educators who are already striving towards equal and fair education can be encouraged by the knowledge that additional methods are being tested to assist in the achievement of inclusion.

3. RESEARCH QUESTIONS

The following research questions guided this study:

- 3.1 What is the current situation regarding inclusion of children with disabilities in the schools represented in this study?
 - 3.1.1 What do the children understand about the term “disability?”
 - 3.1.2 What is the current pattern of inclusion experienced by the children who participated in this study?

- 3.2 What are the attitudes toward inclusion in physical activities held by children with and without disabilities prior to participation in formal inclusion experiences?
 - 3.2.1 What are the attitudes of children without disabilities towards children with disabilities prior to the inclusion opportunities?
 - 3.2.2 What are the attitudes of children with disabilities towards children without disabilities prior to the inclusion opportunities?
 - 3.2.3 What are the expectations of children without disabilities towards inclusion opportunities prior to participation?
 - 3.2.4 What are the expectations of children with disabilities towards inclusion opportunities prior to participation?
- 3.3 What are the attitudes towards inclusion held by children with and without disabilities after formal inclusion experiences?
 - 3.3.1 What were the perceived feelings of children without disabilities toward children with disabilities after participation in the inclusion opportunities?
 - 3.3.2 What were the perceived feelings of children with disabilities toward children without disabilities after participation in the inclusion opportunities?
 - 3.3.3 What were the perceived feelings of children without disabilities toward participation in future inclusion opportunities?
 - 3.3.4 What were the perceived feelings of children with disabilities toward participation in future inclusion opportunities?
- 3.4 What were the attitudes of children toward inclusion in sports and physical activities after participation in the inclusion opportunities?
 - 3.4.1 What were the attitudes of children without disabilities toward inclusion in sports and physical activities after participation in the inclusion opportunities?
 - 3.4.2 What were the attitudes of children with disabilities toward inclusion in sports and physical activities after participation in the inclusion opportunities?

3.5 How do children describe changes in their feelings after participation in inclusion opportunities?

3.5.1 How do children without disabilities describe changes in their feelings toward inclusion after participation (quantitative scales)?

3.5.2 How do children with disabilities describe changes in their feelings toward inclusion after participation (quantitative scales)?

3.5.3 How do children without disabilities describe changes in their feelings toward inclusion after participation (qualitative descriptions)?

3.5.4 How do children with disabilities describe changes in their feelings toward inclusion after participation (qualitative descriptions)?

4. LIMITATIONS

The following limitations must be acknowledged when considering the results of this study:

- Some of the opportunities started late as a result of several participants arriving late.
- Problems with transport occurred with one of the LSEN schools and as a result a bus was hired to transport the participants without disabilities to the LSEN school, where the event took place. This was instead of the event being held at the University as previously arranged.
- The English questionnaires had to be translated into Afrikaans for many children with disabilities who spoke Afrikaans as their home language.
- Answers obtained from the children with disabilities were often in Afrikaans and had to be translated into English.
- Time management during the actual inclusion opportunities was often a problem and thus many prepared activities were not used.

5. SUMMARY

Traditionally in South Africa, LSEN schools have been government funded and therefore, much necessary assistance has been provided to the disabled community in terms of support and education. ^{special schools} While this is not necessarily a negative approach, it has often segregated persons with disabilities from regular environments such as schools, tertiary education centres, work places, etc.

Segregation can promote the formation of attitudes and preconceived ideas about what persons with disabilities are capable of, where they belong in society and how they should be included within societal structures. "Placement of learners seems to be a minor issue in the underlying philosophy of inclusive education" (Hay, 2003:135). If children could experience more carefully structured opportunities where they are "placed together," perhaps practical and accepting attitudes toward inclusion could be developed. It is important that we all realise that although persons with disabilities may have impairments, they also have abilities that they can use successfully in appropriate situations. In order for this kind of inclusion to take place successfully, approaches and ideas should be discussed and implemented in such a way that all involved benefit from the inclusion of the persons with disabilities.

CHAPTER TWO

REVIEW OF LITERATURE

1. THE VALUE OF PHYSICAL ACTIVITIES FOR CHILDREN WITH AND WITHOUT PHYSICAL DISABILITIES

For the purpose of this study, the term physical activities will be used to indicate activities generally used in physical education and/or sports settings in schools.

1.1 THE VALUE OF PARTICIPATION IN PHYSICAL ACTIVITIES FOR CHILDREN

Jewett and Bain (1985) define physical education as personalised and self-directed learning. They add that selected movements are used as media in physical education to achieve individual goals. They based this definition on the assumption that individuals of all ages have the same fundamental purposes for moving. Movement activities used in physical education and sports settings can also help extend the personal meaning of movement to children. It is proposed that a physical education curriculum provides children with the opportunities to realise their movement abilities. "Physical education – an integral part of the total education of the learner, contributes to the development of the individual's potential through a variety of movement experiences, functional, expressive and creative" (Jewett & Bain, 1985:120). They also identify additional outcomes available to children through physical education. The development of a skillful and efficient moving individual indicates that physical education establishes and maintains a good fitness programme for children and includes it into their lifestyles. It assists them with demonstrating their abilities to adapt to and control the physical environment around them as well as providing them with opportunities to develop their social skills. It also provides the children with a wide variety of movement experiences. The development of understanding of the self and understanding of skills through the use of facts, concepts and generalisations relating to human movement implies that through participation in physical activities, children learn to adapt, refine, vary and improvise in order to find solutions to movement problems. The children also develop an awareness of the relationship between body movement and the maintenance of physical fitness and health. Participation in physical activities can provide children with feelings of joy and

satisfaction from the movement experiences. The development of a desire for movement can develop this and allow children to acquire positive self-concepts through this participation. Finally, children who participate in physical activities learn to recognise their current limitations with regards to physical exertion and movement skills.

Physical education is also a process whereby a child is provided with opportunities to explore his or her environment, this being supported by the underlying principle of play. According to Jowsey (1992), play is a natural medium for developing gross and fine motor skills. This development is dependent on the type of activities being completed as well as the individual components combined within each activity, for example: balance, hand-eye co-ordination etc. Play is also a medium for interaction and socialisation between children with and without disabilities.

“Physical education is an academic subject similar to reading, arithmetic, and social studies. It is instructional and should offer a planned sequence of new material each day. Participation should be required, as it is in other subjects, and missed sessions should be rescheduled” (Sherrill, 1993:3). Thus physical education should include clear goals and objectives, clear learning activities and motivational techniques and finally clear evaluation procedures. The value of this approach is that it provides structures for preparation of physical education programmes and thus comprehensive programmes can be prepared and presented by physical education teachers.

Melograno (1996) defines physical education as all forms of physical activities, which satisfy the individual cognitive, affective and psychomotor needs of children. This definition is based on several assumptions. Firstly that physical education is child-centred and primarily the well being and role of the child is most important when developing comprehensive physical education programmes. Secondly that physical education focuses on unique, individual potential. In other words, individual similarities and differences are important in the development of goals and objectives for physical education. Children also need to grow and mature in the cognitive, affective and psychomotor domains and the outcomes of physical activities should be associated with the needs of these children in order to achieve the desired outcomes associated with participation in physical activities. The final assumption that

Melograno (1996) based his definition for physical education on was that physical activity encompasses all forms of fundamental, competitive and expressive movement experiences in participants.

A definition provided by Pangrazi and Darst (1997) defines physical education as a learning process that focuses on increasing knowledge and affecting attitudes and behaviours relative to physical activities, including exercise, sport, games, dance, aquatic activities, and outdoor adventure activities. They further explain that physical education forms an important part of the total education programme at schools. This contribution made by physical education occurs primarily through the physical activity experiences, which assists with the growth and development of all children. They also highlight three outcomes of physical education, which they consider to be unique and valuable to all children. Participants in physical education achieve a personalised level of fitness at their own pace. They develop competency in various physical skills, which ensures the effective functioning of children in lifetime activities. The acquirement of knowledge related to motor skill performance and fitness maintenance represents a further outcome.

Sherrill (1993) suggests that physical education provides a better understanding and appreciation of the body, both in motion and at rest. She states that physical education provides opportunities for vigorous activities, instruction in relaxation, creative expression, practice in sports and participation in games that teach co-operation and social skills. Physical education provides children with opportunities for personal responsibility and independence. According to Sherrill (1993) this is known as self-actualisation. This effectively means that a child feels good about his or herself and has confidence in his or her movement abilities. Through physical education, children learn to discover new possibilities for individual development and learn to appreciate their abilities and limitations.

"Physical education can be a positive and exciting experience for participants" (Pangrazi & Darst, 1997:1). Children participating in physical education can develop socio-emotional skills and positive self-concepts. Pangrazi and Darst (1997) consider these to be valued outcomes of physical education. Participation in regular physical activities also improves fitness levels as well as cardiovascular efficiency, flexibility, body fat reduction, and muscular strength and endurance. Positive experiences in

physical education classes and fitness activities may also ensure an active adult lifestyle. A comprehensive physical education programme can provide children with a wide range of knowledge of rules, strategies and games etiquette. Pangrazi and Darst (1997) suggest that this increase in knowledge will further increase the enjoyment and participation of children in physical activities.

The value of participation in physical activities remains the same for children with and without disabilities. However, because of certain movement limitations which may occur as a result of the child's disability, certain modifications may have to be made to the activities or component parts of the activities in order for the child with a disability to participate successfully.

"Adapted physical activity is a crossdisciplinary body of knowledge directed toward identification and solution of psychomotor problems throughout the lifespan" (Sherrill, 1993:5). These psychomotor problems may either be caused by the environment or may be within the individual. Adapted physical education is supportive of individual differences and the resultant adaptations that may have to be made as a result of the psychomotor problems. It also assists with the improvement of psychomotor problems in children and thus problems are eased and corrected as far as possible.

Sherrill (1993) divides adapted physical activities into three components to indicate the value of physical activity for the participants. The believing component reflects an attitude towards teaching in physical activity classes where the learning experiences have to be adjusted in order to meet the individual needs and achieve maximum success. If individual needs are met and success is achieved, this will encourage further participation in future physical activities. The participant with a disability is valued as a person who can achieve through exercise and sport. The doing component is defined by Sherrill (1993) as a comprehensive service delivery system, which is designed to improve psychomotor problems in children. It assists with the provision of individualised programmes to meet the different needs of children within specific physical activity settings. This ensures high quality education for all children. The knowing component is the crossdisciplinary body of knowledge that focuses on identifying and remedying the psychomotor problems of children who might encounter movement problems and perform below age level expectations or require assistance in overcoming barriers.

Adapted physical activities provide children with psychomotor problems with the opportunities to participate in adapted sports, which can satisfy their movement needs. Physical educators can help children to adapt by adapting the physical education curricula. The programme content, assessment methods and physical environment can be adapted according to the needs of the child. Adapted physical activities also provide children with disabilities with opportunities to learn, with the benefits of physical activity, with instruction in sports, and leisure activities and with high-quality education.

Downs (1995) contends that the benefits of physical education and sports are essentially the same for children with and without disabilities. If physical educators adapt certain aspects of their educational programmes in order to better accommodate children with disabilities, then the children with disabilities will experience the same benefits as the children without disabilities. This statement is supported by Herbert and Bressan (1995) who indicate that regular participation of all children in carefully designed and implemented physical activity programmes can improve their physical, social and psychological well being. According to them, children with disabilities will follow the same general patterns as those of children without disabilities who are participating in physical activities. They too will experience improvements in self-esteem and confidence. They may become more co-ordinated and physically competent. They may feel fitter and healthier, develop good social and personal skills, improve their co-operative skills and be exposed to leadership and team work experiences.

Even if the individual has a physical disability, it should not negatively affect his or her successful participation in physical activities. Access to opportunities and benefits associated with physical activities should thus be available to all children.

1.2 THE AIMS OF PHYSICAL ACTIVITIES

Various researchers (Jewett & Bain, 1985; Jowsey, 1992; Goodman, 1993; Sherrill, 1993) indicated that physical education aims to provide children with various psychological, physical and social benefits. To ensure that these benefits are available to all participants it is important to understand the aims of physical activities and sports environments.

1.2.1 THE AIMS OF PHYSICAL ACTIVITIES IN SCHOOLS FOR CHILDREN WITHOUT DISABILITIES

Jewett and Bain (1985) identified similar aims for children without disabilities in physical education. They identified two major areas of focus in physical activity namely developmental aims specifically for the individual (individual development aims) and the development of social skills for the successful functioning of the individual in a community (socio-cultural aims). Firstly, the specific aims with regards to individual development allow the individual to develop their movement capabilities by improving co-ordination, dexterity and balance. It will provide the participants with opportunities to express ideas and to develop an appreciation of the movement activities. The individuals will discover new possibilities for movements and alternate activities as well as experience an element of fun and enjoyment whilst participating in the movement activities. Participation in the activities will provide the individual with an understanding of the principles of movement.

The aims indicated to assist with the successful functioning of the individual within a community include the development of skills necessary for interacting with others. Participation in movement and physical activities will further assist participants with the development of positive attitudes and social skills such as sportsmanship, independence, responsibility, leadership, co-operation and an appreciation of the limitations and capabilities of the self and in others. Participation in physical activities will provide recreational involvement for all participants as well and opportunities for participation and competition in a suitable and healthy movement environment.

Jowsey (1992) identified the following aims for children without disabilities.

- (i) Provide opportunities for success and achievements

In general physical education contexts the experience of success and failure is a major contributing factor towards continued participation of all children in tasks and activities provided within the physical education environment.

- (ii) Optimise physical development, growth and fitness

Physical education can offer a wide variety of physical and sports activities, which optimise the physical benefits of exercises and movements.

(iii) Improve motor skills

Combined with the general physical development of children, physical education aims to supplement the improvement of motor skills by means of relevant motor activities (Jowsey, 1992).

(iv) Develop body and spatial awareness

By means of various physical activities, improvements can be made to a child's awareness of his or her body in space as well as improvements in body and limb control.

(v) Provide opportunities for social development (through co-operation and group membership)

According to Jowsey (1992) opportunities for social development are entrenched in communication and interaction between group members when participating in physical activities. This will provide opportunities for exposure to and an understanding of individual strengths and weakness.

(vi) Allow the child to express ideas and feelings (through movement)

Participation in a variety of physical activities allows the child freedom of expression, feelings and emotions. This particular aim can be accommodated in the areas of dance, gymnastics, synchronised swimming and other rhythmical activities, which are included in the movement curricula.

(vii) Develop aesthetic awareness and encourage creativity

Continued involvement in physical activities and the exploration of the body's capabilities also encourages children to focus on the maintenance of proper body posture, balance and carriage. Opportunities for creative movement and thinking are available in many physical activities and sports environments.

(viii) Develop recreational pursuits

According to Jowsey (1992) participation in physical activities aims to encourage children to continue with related sports extramurally or recreationally. This results in exposure of the child to new social environments, which provide further opportunities for interaction and communication.

- (ix) Provide opportunities for problem-solving and decision-making as well as for experiencing success and failure

Physical activities, which require responsible decision-making and problem-solving efforts assist the child in becoming more mature and alert to new possibilities within the activities provided.

It seems that the main aims of physical education and sport (physical activities) are to provide children without disabilities with opportunities to improve their social, psychological, physical, cognitive, affective and motor capabilities.

1.2.2 THE AIMS OF PHYSICAL ACTIVITIES IN SCHOOLS FOR CHILDREN WITH DISABILITIES

Jewett and Bain (1985), with regards to the above-mentioned aims (children without disabilities), discuss the provision of aims that provide equal opportunity for children of both sexes, all races and all abilities. They suggest when working with children with disabilities as well, an additional aim could be to structure group interaction in order to strengthen relations between the different groups. Another aim would be to provide opportunities for children with disabilities to develop and maintain a suitable level of physical fitness through participation in activity settings. These should be as supportive to them as to children without disabilities. In addition, the provision of a variety of competitive sports opportunities will challenge the most talented children, whilst providing full and satisfying participation for children who are not as athletically talented.

In 1992 Jowsey reported a number of specific aims in physical education for children with disabilities, which can assist them with the realisation of their aspirations and goals.

- (i) To develop specific skills, to assist with movement

Through physical activities, provided in a physical education and sport programme, a child with a disability may experience a general physical improvement. This might lead to an improvement in specific skills.

- (ii) To teach the child to make the most of his or her abilities

This aim indicates that through participation in movement activities the child with a disability will develop remaining physical abilities well. As a result of these strengthened abilities, the participant may experience opportunities to explore movement activities beyond the previous limitations resulting from their physical abilities.

- (iii) To learn to compensate for limitations

Through planned physical activities children with disabilities will learn how to compensate and make adjustments in order to complete tasks as successfully as possible.

- (iv) Create a realistic perspective of the child's abilities

The realisation of this aim is an understanding of activities that may or may not be too difficult for the child with a disability to complete successfully. This information will assist the physical educator with the creating of suitable physical education programmes for the child with a disability.

- (v) To develop self-help skills

The development of self-help skills in children with disabilities will assist with performance of increased tasks and everyday activities more independently and without assistance from an assistant or peer.

- (vi) To assist with the development of personal responsibility for physical control and management

Physical activities may assist with the learning and future use of life-skills such as responsibility and personal management. These are skills that are repeatedly used throughout the adult life of the child too (Jowsey, 1992).

- (vii) To extend mobility, dexterity and independence

Improved mobility and dexterity may result in greater physical independence and may improve the child's general quality of life and psychological well being.

Goodman (1993) urged all administrators, coaches and role players to be aware that persons with disabilities participate in sports for the same reasons and purposes as those without disabilities. Persons with disabilities participate because they aim to improve fitness and develop new skills, increase social contacts and experience personal enjoyment and challenge. They might want to participate for the chance to achieve and gain recognition within their chosen sport and for the thrill of the competition.

Goodman (1993) also suggested that participants with disabilities generally have the same emotions, hopes and aspirations as any other person without a disability. Few disabilities require total abstention from sport yet the level of participation and competition may vary. The aims of physical activities for children with disabilities shall recognise the needs of the participant.

Sherrill (1993) also suggests a number of aims for adapted physical education for children with disabilities. The following aims can be achieved through participation in movement and physical activities. Involvement in activities can assist with the development of positive self-concept and body image in children with disabilities. It can also increase the appreciation and understanding of the body and teach the children to accept their limitations that cannot be changed. Thus they can be taught to adapt to their environments in order to make the most of their strengths.

Physical activities can provide children with disabilities with the opportunities to have fun and to feel happy despite their disability. The aim of experiencing fun and to provide tension release can reduce hyperactivity and teach the children to relax, especially when participating in recreation activities. This may improve mental health and attitudes towards exercise.

Adapted physical education aims to increase creativity in movement and thought. It can also teach children with disabilities to create new games, movements and expressions. Children with disabilities can learn fundamental motor skills and patterns through well-planned physical activities. Further participation can assist the children with the mastery of these fundamental skills and Sherrill (1993) indicates that adapted physical education also aims to improve fine and gross motor co-ordination, which provides increased support for self-care, school, work and play

activities. Another aim of adapted physical education is to promote contact and interaction behaviours between children with disabilities and toys, play apparatus and other children. The children with disabilities will learn the basic game formations and mental operations required for playing. Involvement in games will also assist them with the mastery of the rules and strategies for simple games.

According to Sherrill (1993) adapted physical education teaches children with disabilities to exhibit appropriate social behaviours and reduces social isolation. Adapted physical education also aims to assist with the development and maintenance of friendships between the children. This may improve the overall social competency of the child with a disability. As with children without disabilities, participation in physical activities may also improve the cardio-vascular fitness, muscle strength, flexibility and endurance of children with disabilities. It also improves the posture of children with and without disabilities. Adapted physical education aims to assist with sensory integration and the improvement of the visual, auditory, tactile, vestibular and kinaesthetic senses. As a result, an improvement in perceptual motor function may occur, which improves the cognitive, language and motor functioning of the child with a disability.

A number of the aims for physical activities are the same for children with and without disabilities (e.g. improvement in cardio-vascular fitness etc.). Specific aims such as the ones mentioned above have however been identified as necessary for the overall development of the child with a disability with regards to social, psychological, cognitive and physical skills and capabilities.

1.3 GENERAL PRINCIPLES FOR TEACHING PHYSICAL ACTIVITIES

The values of participation in physical activities, as well as the aims involved in physical education and sports programmes for children with and without disabilities appear to be basically the same. One might therefore assume that the general principles for ensuring the teaching of well-planned physical activities in schools for both children with and without disabilities would also share certain similarities.

Jewett and Bain (1985) stated that the intent of physical education is to encourage children to develop a good physical condition, to engage in recreational activities and to co-operate in team situations. Throughout the school careers of children, individual

and team activities are included into physical education and sports programmes. The activities in these programmes should be selected according to the needs as well as the abilities of the participants. This clearly indicates that physical education is concerned with the child, the needs of the child and also in developing the abilities of the child. According to these researchers, comprehensive programmes will contribute to the total growth and development (all domains) of children. All activities should promote physical fitness, basic movement, social and emotional development and the appropriate values for the specific participant. If this is kept in mind throughout, the needs of the individual participant will be met.

In the book: *Social Studies for Children: A Guide to Basic Instruction*, Michaelis (1988) stated that a child's maximum growth is more important than the minimum standards set for the groups. This supports the principle that each child should be given individually determined time frames (learner paced principle) to complete assigned tasks and to reach individual goals in. Additionally he argues that inclusive opportunities foster the principles of democratic attitudes and positive self-concepts and discourages the negative labelling of others. Naturally this enriches the learning of all children.

Jowsey (1992) identified a number of general principles that would assist with the successful inclusion of children with disabilities into regular physical education settings. To focus on the abilities rather than the disability of the participant is of importance to all, but more so when working with the participant who experiences movement problems. This would require the teacher or coach to establish the participant's individual strengths and abilities. The principle of encouraging independence, often in situations where it is easy for the persons without disabilities to act independently, is a principle that should be directly kept in mind when working with persons with disabilities. By organising the environment within the physical activity setting, participants with disabilities will be able to show creativeness and to take the initiative with the activities provided. This will ensure that the independent thinking and acting of the participants is also developed. Jowsey (1992) refers to the principle of responsibility, which needs to be specifically addressed. All children, especially children with disabilities should be provided with opportunities for decision-making together with opportunities for the acceptance of the resultant responsibility,

which goes hand in hand with the initial decision that was made. These principles, according to a number of researchers (Goodman, 1993; Sherrill, 1993) are also relevant when working with children with disabilities in physical activities. The reason why children with disabilities generally lack some degree of basic mobility, physical fitness and social skills according to Jowsey (1992) and Sherrill (1993) is because of over-protection as well as a lack of opportunities to participate in physical activities.

The Australian, Goodman (1993), with regards to sports programmes lists several principles to be adhered to when working with children with disabilities. If a child chooses to participate in sport, he or she should be treated like athletes (i.e. sport participants) who want to achieve individual goals. It is important for the teacher or coach involved to focus on the abilities of the children and use that to overcome existing disabilities that can not be altered. As with all children, the activities should be creative and therefore adaptive, to suit the participation needs of the individual. Goodman (1993) advises that the children themselves should be asked (where possible) regarding information about their disabilities that can assist with the development of specific tasks which better accommodate their present skill levels. Assistance with the execution of movement tasks should only be provided when requested for by the children with disabilities. The principle of good communication, especially between the participant and coach is essential. Goodman (1993) also emphasises that it is important that the children with disabilities are not unnecessarily over-protected by teachers, parents and the community and that providing more opportunities to develop the abilities of children with disabilities will contribute to easier inclusion situations.

According to Van Deventer (2002) physical education should be taught by means of effective and formative learning programmes. Van Deventer (2002), as with Jewett and Bain (1985) clearly states that it must suit the individual's needs at the specific stage of development (learner paced) and that it is built upon knowledge about the participant (participant centred). It should also contribute to the positive values of the community (outcome based and domain specific). Van Deventer (2002) also contends that in order to create such programmes emphasis should be placed on skills, knowledge and attitudes of the children participating in physical education.

1.4 A BRIEF DESCRIPTION OF THE DIFFERENT DISABILITY GROUPS PARTICIPATING IN PHYSICAL ACTIVITIES

According to Sherrill (1993) a physical disability adversely affects a child's educational performances. This does not include academic performance but adaptations usually do have to be made for safe and successful participation in physical education together with children without disabilities. Physical disabilities can be caused by congenital anomalies e.g. absence of a limb at birth, impairment caused by disease e.g. Poliomyelitis or impairment from other causes e.g. amputation, cerebral palsy.

1.4.1 CEREBRAL PALSY (CP)

"CP occurs before, during, or after birth, when the brain is immature" (Mushett, Wyeth & Richter, 1995:125). Porretta (2000) defines cerebral palsy as a group of permanent symptoms with disabling affects resulting from damage to motor control areas of the brain. This results in a loss or impairment of control over the voluntary muscles of the body. Children with cerebral palsy exhibit disorders of movement and posture. Symptoms vary according to the amount of damage to the brain ranging from mild to severe.

There are three types of neuromotor classifications for cerebral palsy generally involved in physical activities (Sherrill, 1993; Mushett, Wyeth & Richter, 1995; Porretta, 2000).

(i) Spasticity

According to Porretta (2000) spasticity is caused by damage to the motor areas of the cerebrum. This causes increased muscle tone and as a result exaggerated muscle contractions are common in the form of hyperactive stretch reflexes (Sherrill, 1993; Mushett, Wyeth & Richter, 1995). Individuals with spasticity tend to exhibit jerky and inaccurate movements. There also tends to be a narrow base of support and thus balance problems are common. This may lead to movement difficulties when running, jumping and throwing.

(ii) Athetosis

“Damage to the basal ganglia (masses of gray matter composed of neurons located deep within the cerebral hemispheres of the brain) results in an overflow of motor impulses to the muscles, a condition known as athetosis” (Porretta, 2000:183). Sherrill (1993) defines it as constant, unpredictable and purposeless movement. Involuntary, uncoordinated and slow movements are common in children with athetosis. It has been described by Mushett, Wyeth and Richter (1995), as an automatic writhing type of movement of the limbs and trunk. Thus poor control of the head and neck may occur and facial grimacing and other facial control problems are characteristic in such children. Due to poor control of the head, visual tracking of objects is poor and thus children with Athetosis have trouble tracking moving objects in motor activity settings. Problems with accuracy may also occur for example when aiming an object at a target or kicking at a moving ball.

(iii) Ataxia

“Damage to the cerebellum, which normally regulates balance and muscle co-ordination, results in a condition known as ataxia” (Porretta, 2000:184). Ataxia also results in the full or partial loss of fine motor control (Mushett, Wyeth & Richter, 1995). Balance difficulties result in an unsteady walking gait. Improper arm and leg movements also occur due to a lack of sufficient co-ordination.

This is most noticeable when the individual attempts to complete normal movement activities. Frequent falls are common and children with ataxia are often observed as being clumsy and awkward. This is as a result of the arms appearing overactive in order to maintain balance (Sherrill, 1993). Usually such individuals have problems with locomotor activities such as running, skipping and jumping.

1.4.2 AMPUTATIONS

Sherrill (1993) and Porretta (2000) describe an amputation as a loss of an entire limb or specific limb segment. Usually amputations are divided into two categories, namely:

(i) Acquired amputations

Diseases, tumours or trauma to the limbs generally cause this type of amputations. Sherrill (1993) states that of all disabilities that result from trauma, acquired amputations are the most dramatic. The level of amputation will affect motor performance of the individual to a large extent but despite this, children with amputations can participate in physical activities successfully.

(ii) Congenital amputations

Failure of the foetus to properly develop during the first three months of pregnancy may result in congenital amputations. Of these two main types have been identified. "The middle segment of a limb is absent, but the proximal and distal portions are intact, this is known as Phocomelia" (Porretta, 2000:200). The second type of congenital amputations refers to cases where no normal structures such as hands and fingers are present below the missing segment although in some cases, bud-like structures have been present at the end of the remaining segment.

Sherrill (1993) identifies the amputee sports classifications, which allow for the placement of individuals with amputations into competitive environments where they can compete against individuals with similar or comparable disabilities.

1.4.3 SPINAL CORD IMPAIRMENTS

Spinal cord impairments are acquired through some kind of trauma to the spinal cord (Sherrill, 1993). Most individuals with spinal cord impairments are affected in their lower limbs and trunk areas and depending on the level of injury to the spinal cord may also experience paralysis in the upper limbs. Thus the higher the lesion, the greater the possibility that the upper limbs and trunk will indeed be affected.

(i) Quadriplegia

This is the more severe form of spinal cord impairment, which results in all four limbs being affected. The severity of the paralysis depends on the location of the spinal cord impairment (how high along the spinal cord) as well as the amount of resulting neural damage i.e. the degree of lesion to the spinal cord (Kelly, 2000). If the spinal cord is completely severed, there will be no motor control or sensation below the

point of the lesion. This is a permanent condition as the spinal cord is unable to regenerate itself. According to Sherrill (1993) about half the individuals with quadriplegia have incomplete lesions. This may mean that they are able to walk. Some injuries to the spinal cord are so high and complete that the individual even has difficulty breathing independently. These individuals are usually dependent on motorised wheelchairs for ambulation.

(ii) Paraplegia

"Paraplegia is the complete or partial loss of function (movement and/or sensation) of both arms, both legs and possibly the trunk (i.e. affects lower limbs)" (Goodman, Lee & Heidt, 1996). Damage usually occurs lower down in the spinal cord compared to quadriplegia. As paraplegia usually involves the legs, some trunk mobility may remain. According to Sherrill (1993) sometimes trunk control and balance may be lost due to the injury. If trunk balance and control is lost, persons with paraplegia may have to be strapped to their chairs to assist with maintaining an upright sitting position.

(iii) Spina Bifida

"Spina Bifida is a congenital defect of the spinal column caused by failure of the neural arch of a vertebra to properly develop and enclose the spinal cord" (Sherrill, 1993:559). This usually occurs during between the fourth and sixth week of pregnancy. The result is an abnormal gap in the spinal column (Goodman, Lee & Heidt, 1996). There are three types of spina bifida namely *meningomyelocele*, which this is the most common type of spina bifida. The spinal cord and nerve roots are forced into a tumourous sac through a vertebral cleft. The other two examples of spina bifida are *meningocele*, which occurs when only the spinal cord covering is forced into a tumourous sac, and the cord and nerves remain outside the sac as well as *spina bifida occulta*, which is a condition is concealed under the skin.

This does not cause paralysis or weakness but can cause back problems in adults. Both *meningomyelocele* and *meningocele* must be corrected by surgery. Spina bifida is non-progressive, which means that the condition does not worsen over time.

(iv) Poliomyelitus

This is a viral infection, which causes either paraplegia or quadriplegia. It is an infection of the protective covering around the nerve fibres in the spinal cord. This causes muscles to become paralysed due to the fact that motor nerve cells are affected. The difference between spinal cord impairments and poliomyelitis is that sensation is retained in the affected areas as the virus does not attack and damage the sensory nerve fibres. Today, there are vaccines available to provide immunisation against the virus (Sherrill, 1993).

1.4.4 LES AUTRES

This is a French term, which means “the others”. It is a term used to describe individuals participating in competitive sport with a range of conditions which result in locomotor disorders that have not been included in the traditional classification systems of the already established disability groups. Usually individuals classified into this group have unique physical and motor characteristics and therefore physical education instruction needs to be personalised and individualised (Porretta, 2000).

1.4.5 VISUAL IMPAIRMENTS

In the book, *Adapted Physical Education and Sport (Third Edition)*, the Individuals with Disabilities Education Act (IDEA) defines visual impairments as follows:

“Visual Impairment, including blindness, means an impairment in vision that, even when corrected, adversely affects a child’s educational performance. The term includes both partial sight and blindness” (Craft & Lieberman, 2000:160).

Sherrill (1993) indicates the sports classifications of individuals with visual impairments as follows:

- (i) B1 – This group includes all individuals with no light perception in either eye as well as the inability to recognise the shape of a hand in any direction and up to any distance.
- (ii) B2 – Individuals in this group have the ability to recognise the shape of a hand up to a visual acuity of 2/60 and/or a limitation of field vision of 5°.

- (iii) B3 – Participants in this group have 2/60 to 6/60 vision and/or field of vision between 5° and 20°.

Socially, children with visual impairments exhibit fearfulness and dependence upon others (Craft & Lieberman, 2000). Such behaviour is not only attributed to the child's lack of vision but also to the overprotection of such children as a result of their condition. This may result in fewer play opportunities for children with visual impairments.

1.4.6 HEARING IMPAIRMENTS

Craft and Lieberman (2000) define hearing impairments or deafness as a hearing loss in which hearing is insufficient for comprehension of auditory information, with or without the use of a hearing aid. "Usually an alternative or assistive mode of communication is required in order to communicate with a deaf person" (Goodman, 1993:3). Although a hearing impairment might not directly influence the movement ability of a participant, a lack of communication skills might be the cause of incorrect learning of specific movement skills. In terms of sports classifications, a loss of 55dB in the better ear is required to classify the individuals who are deaf or hard of hearing into the sports group.

1.4.7 INTELLECTUAL IMPAIRMENTS

Intellectual impairments are characterised by cognitive limitations as well as functional limitations in the areas of daily living skills, social skills and communication (Krebs, 2000). Intellectual impairments are also characterised by significant sub-average intellectual functioning i.e. a score of below 70-75 on an intelligence test. This below-average functioning must exist together with limitations in two or more adaptive skill areas namely communication, self-care, home living, social skills, self-direction, health and safety, functional academics, leisure and work. These adaptive abilities refer to the ability of the individual to mature personally and socially with age (Krebs, 2000).

" A person with an intellectual disability can be considered to be an individual who:

- a) Receives education, social education or training opportunities designed for those who have an intellectual disability

- b) Is eligible to receive services detailed in (a) and/or
- c) Has participated in employment training or schemes consequent upon having an intellectual disability" (Goodman, 1993:3).

Usually intellectual impairments manifest before the age of 18.

The above-mentioned categories are common categories of disabilities generally found in physical activity settings in schools. This study however primarily deals with children with spinal cord impairments, cerebral palsy and amputations in physical activity settings.

2. INCLUSION IN PHYSICAL ACTIVITIES

Children with physical disabilities have physical differences when compared to children without disabilities. Due to the nature of these differences, adapted physical activities have been provided for the children with disabilities. According to Sherrill (1993) the adapted physical activity philosophy is founded in a number of basic beliefs about all human beings. All children can benefit from physical education because all children have the ability to learn. All children should be assured the right of high-quality physical education and should be provided with adequate physical activities to improve health and fitness levels.

When including children with disabilities into regular schools, the above-mentioned components should assist with the inclusion process.

2.1 A SHORT HISTORY OF INCLUSION

In the past, the terms mainstreaming and integration have been used to describe the process of placing children with disabilities into regular physical activity and education programmes.

The term "mainstreaming" originated in America in 1975 after the passing of Public Law 94-142, which stated that all children with disabilities were entitled to the same opportunities as children without disabilities. It describes the process of integrating children with disabilities into regular physical activity session.

A programme of integration refers to the placement of children with disabilities into regular settings. A problem identified with regards to this approach is that integration cannot always ensure acceptance of the children with disabilities by children without disabilities. In 1993, Sherrill discussed the Least Restrictive Environment (LRE) principle, which aimed to place each student into a least restrictive educational environment. An educational environment is considered least restrictive when individual abilities are matched by appropriate services and when as much freedom as possible is preserved.

The term "inclusion" has most recently replaced the two above-mentioned terms when referring to children with disabilities and regular sport/physical education. Inclusive programming requires that all children with and without disabilities are provided with the opportunities to participate in physical education and activities at the appropriate level and with appropriate support.

Downs (1995) states that this implies that children are accepted as part of the community and so are embraced as a part of the total education system.

Karper (1995) identified problems with inclusion, especially when classroom teachers were required to teach the physical education classes too. The teachers have few options to turn to when requiring advice and specialised assistance and there may also be a shortage of special education professionals to assist with the teaching of the children with disabilities in the inclusion settings. Scarce financial resources may also present problems when attempting to include children with disabilities into regular educational settings.

Sherman (1996) further identified several practical problems relating to the inclusion of children with disabilities into regular settings. The number of participants in classes are sometimes already large e.g. 40 children, which might require personal assistance to enable the participant with a disability to reach set goals and aims. As the inclusion of children with disabilities into non-LSSEN schools is fairly new, some teachers are ill prepared to teach in the included settings (Karper, 1995; Sherman, 1996). Another practical problem that may occur is that children without disabilities do not always accept the children with disabilities into their classes.

Inclusion is defined by Hutzler, Fliess, Chacham and Van den Auweele (2002:301) as “providing specially designed instruction and support for students with special needs in regular physical education settings”.

Whilst there are many reasons why children with disabilities should be included into regular sports and educational settings, there are also a number of reasons given by Lieberman and Houston-Wilson (2002) as to why it may be better to teach them separately at special schools. (The researchers only recommend this under special circumstances). They stated that children with disabilities should only be removed from a general education class if the child requires additional related services such as physiotherapy, occupational therapy and speech therapy or if the placement has a permanent negative effect on children without disabilities. If a child with a disability is unable to perform simple tasks within the physical education setting, it may prove that the child requires specialised care and assistance in order to perform the tasks successfully. Such assistance is generally provided at special schools. When teachers notice that the child with a disability is not improving during the performance of tasks and activities, it may be recommended that the child be moved to another educational environment where the learner will receive the educational benefits, in a different environment. Lieberman and Houston-Wilson (2002) indicate that one should segregate a child from typically developing peers for physical education if there is a probability of harm to the child with a disability.

It is important to note that it is stated that with proper preparation and guidance, however, all schools and teachers will be able to successfully include children with disabilities. There are, however, ways of overcoming the difficulties teachers or a child with a disability may experience in the classroom or physical education setting (Lieberman & Houston-Wilson, 2002).

If the child is experiencing difficulty being successful in the physical education class with it's activities, then it is the teachers responsibility to ensure that the activities within the classes are either adapted to include the child with a disability or the child is given a set of specific activities. This might mean that the child then completes the activities at the same time as the children (without disabilities) are completing their tasks. This should take place within the same physical education setting. All participants are more likely to experience success when completing the activities and feelings of self-efficacy and satisfaction may develop in the child. In turn this may

lead to future continued attempts by the child with a disability to complete tasks assigned to him or her. Teachers who have to teach physical education classes and who do not have the necessary experience should attend supplementary courses to provide them with information and knowledge on how to adapt activities for children with disabilities.

2.2 THEORIES RELATING TO INCLUSION

The principle of inclusion in physical activities (physical education and sport) is a change for all involved. It is therefore necessary to ensure that it is clearly understood and that the needs of the children, the participants who are the centre of the process, are met.

Both Lieberman and Houston-Wilson (2002) and Sherrill (1993) agree that a thorough assessment of the child and the movement abilities of the child need to be determined. "Assessment is the cornerstone of appropriate program planning, implementation, and evaluation" (Lieberman & Houston-Wilson, 2002:17). It is required in order to ensure that children receive an appropriate physical education experience. Assessment allows for the positive shaping and preparation of the curriculum as well as its content, goals and objectives. This in turn assists with the shaping and growing of the child's abilities. Improper assessment results in the development of poor programmes, which do not address the child's individual needs. This in turn leads to a reduction in participation benefits.

According to Lieberman and Houston-Wilson (2002) an objective assessment is an effective assessment. Usually, checklists are used to identify component skills within movement and for the objective measurement of the child's abilities. Thus components that are mastered as well as those components that need to be mastered by the child can be identified. If an assessment programme is efficiently utilised and interpreted, educators and coaches can develop appropriate activities, which will be successfully mastered by the participant.

Sherrill (1993) states that assessment is important to determine if the child with a disability has unique needs. To be successful in assessment she identified four purposes of assessment. Screening is the first step to determining if a child has unique needs. According to Lieberman and Houston-Wilson (2002), screening is the

observation of children with disabilities and their actions. It is then the responsibility of the observer to determine whether or not the actions of the child differ from the typical actions of children.

Once screening has been completed decisions can be made with regards to appropriate placement and the development of suitable physical education environments, which will best satisfy the needs of the child. It is also important for teachers and other school professionals to maintain a good level of communication with the child's parents/guardians.

"Communication is essential to understanding student's unique needs, abilities, and achievements" (Lieberman & Houston-Wilson, 2002:20).

The teacher usually does assessment of instruction. This assessment identifies specific strengths and weaknesses of the current instruction and guides lesson-planning. Usually continuous assessment is the best way to maintain proper instruction programmes. For the purpose of inclusion in physical activities it might be necessary to make use of existing classification guidelines that are being used in competitive sport settings (Sherrill, 1993). Sport and activity classifications sometimes used to assign children according to their medical conditions and abilities.

During the course of inclusion of children with disabilities into regular settings, several theories for effective inclusion have been suggested. "The purpose of a theory is to describe, explain or predict some kind of phenomenon like development or learning" (Sherrill, 1995:8). Lieberman and Houston-Wilson (2002), suggested four basic theories, which may be utilised in order to adapt the curriculum to accommodate the special and unique needs of children with disabilities:

2.2.1 ADAPTATION THEORY

"It is the art and science of managing variables so as to achieve desired outcomes" (Lieberman & Houston-Wilson, 2002:53).

This theory is based on individual and environmental interactions that maintain homeostasis. The theoretical construct indicates that it is the concept that activities may only be accessible to children with disabilities if they are adapted. Thus if balance is achieved between the individuals' needs and the environmental

characteristics, the variables concerned will provide benefits for all those involved in the interactive situation. According to Sherrill (1993) adaptation is a process whereby individuals and their environments interchange in a reciprocal manner with each other. In other words, the changes and benefits move in both directions. The adaptation of environments and activities may also be described as continuous and dynamic as changes are always taking place (Lieberman & Houston-Wilson, 2002). Children adapt to and alter their environments every time they respond to something within the environment.

A similar theory identified by Sherrill (1993), known as the competence motivation theory, may be compared to the adaptation theory as it regards the successful participation of children with disabilities as important because a positive association between physical activities and feelings of success promote further participation in physical activities.

Lieberman and Houston-Wilson (2002) identified several variables, which can be promoted to ensure success with regards to the adaptation theory. Temporal environmental variables relate to all variables within the environment which vary beyond the control of individuals involved in the physical activities e.g. wind and time of day etc. Sherrill (1993) identified a number of physical environmental variables such as space, lighting, sound, surfaces, mirrors, distracters, allergens e.g. dust and finally temperature and humidity that could affect the implementation and presentation of physical activities for children with and without disabilities. Object or equipment variables e.g. size, weight, colour, surface texture, sound, shape and movement can be changed to increase the possibility of success when participating in physical activities. Lieberman and Houston-Wilson (2002) regard attitudes and feelings with regards to the self and others as psychosocial environmental variables. Learner variables relating to participants in physical activity settings include variables such as demographics (e.g. age, gender, etc.), interest, previous experience in activities, learning style, strengths and weaknesses of the individual in the cognitive, affective psychomotor domains. Another type of variable identified by Sherrill (1993) is known as an instructional or informational variable and some examples would be teaching style, type of feedback, level of assistance, use of time and methods for presenting new material. Educators and coaches generally control all these variables when working in the physical activity settings. Task variables, as described by Sherrill

(1993), are action or performance variables. This includes speed, pathway, direction, height, accuracy and force in relation to objects and movements.

When including children with disabilities into regular physical education these variables can be manipulated and changed individually or together to ensure that all participants achieve success.

“Adaptations made in one area may facilitate the adaptation of another, and so on” (Lieberman & Houston-Wilson, 2002:53). Thus, if adaptations are made successfully in one area, it might even facilitate successful adaptations in other areas of the individual’s life.

2.2.2 NORMALISATION THEORY

The approach that this theory follows is that all conditions that are available to children without disabilities must also be made available to children with disabilities. Thus, same-aged peers should all have the same educational and sporting opportunities available to them. In effect, this means that children with disabilities are not isolated but instead are included. In America, this theory assists with the inclusion of children with disabilities into culturally accepted games and activities together with children without disabilities. Sherrill (1993) states that normalisation requires the adaptation of activities to be a process which is applied to all children, not just children with disabilities. However, changes should be kept to a minimum and should only be made as required for the successful inclusion of children with disabilities.

Successful implementation of this theory requires all involved in inclusion to perceive individuals with disabilities as human beings who can acquire skills throughout their lifetimes. Individuals with disabilities must be allowed to take full advantage of their culture and must also be provided with services by competent, trained personnel in education and habilitation. Human services that are valued and understood by society should care for individuals with disabilities, provide them with relevant opportunities and assist them to play valued roles and lead valued lives in society (Sherrill, 1993; Lieberman & Houston-Wilson, 2002).

2.2.3 SELF-DETERMINATION THEORY

This theory emphasises the right of a child with a disability to possess control, power, and decision-making abilities. Thus, when they are included into regular environments they are perceived as valuable to society and thus are valued by society (Lieberman & Houston-Wilson, 2002). Sherrill (1993) identifies motivation as being a fundamental part of this theory. Motivation refers to all forces, which focus behaviour, start and stop behaviour and determine the frequency and duration of behaviour. There are various forces which also motivate participation in physical activities i.e. success, fun and satisfaction (Sherrill, 1993). The personal meaning theory involves the personal meaning that having a disability has on a child with a disability. This affects the success of adapted physical activities, as children who experience physical activities as fun tend to exhibit a more positive association with the personal meaning that it has to them. If the children with disabilities possess the power to make decisions with regards to participation in physical activities, the personal meaning for them will be enhanced.

This approach can be promoted by adapting activities so that all may participate and achieve to the best of their individual abilities. In doing so, children with disabilities become more valued by society which in turn provides opportunities for choice in participation and adaptations. Equal access to opportunity is essential in order for everyone to be seen or exposed, and thus be accepted as equals. This means that educators and coaches involved in inclusion should often ask whether all children they work with have access to equal opportunities, choices and options. According to Lieberman and Houston-Wilson (2002) the answer to this question is often that all children are not free to make their own choices regardless of whether they have a disability or not.

2.2.4 EMPOWERMENT THEORY

Also known as the self-concept theory (Sherrill, 1993), this theory places emphasis on a common set of beliefs that an individual holds in regards to their self. These beliefs emphasise that children have the ability to bring about change with decisions that they make. Together with teachers and therapists, there can be a shared responsibility for planning and decision-making. This entails that all students take responsibility for their lives and it empowers them to change what needs to be

changed so that they become active and healthy. They are encouraged to make the most of all their opportunities to learn which has strong implications for their lives after school. It may even assist them when preparing to work after school.

This theory has direct bearing on learning and other associated behaviours. Self-concepts include perceptions of past behaviour, feedback, tasks that have been previously mastered, comparison of achievements with those of other children and the level of personal meaning success has to the child (Sherrill, 1993). Self-concepts of children with disabilities are usually lower than in children without disabilities. This may be due to expectations of failure, dreading being teased, fear of letting teammates down and thus a growing reluctance to participate. Children with low self-concepts must be taught to change negative feelings about the self and methods for dealing with stress and fears of failure. Educators and coaches play an important role in promoting positive attitudes towards participation in physical activities.

A similar theory is the teacher expectancy theory which is based on the assumption that children will perform as they think others expect them to perform or that children with expect of themselves what others expect of them (Sherrill, 1993). This theory emphasises the importance of positive thinking, believing and acting and the effect that the positive beliefs of teachers can have on the performance of children with disabilities.

“A strong educational background and adapted experiences should lead these children to be strong, independent self-advocates” (Lieberman & Houston-Wilson, 2002:56).

2.3 MEETING THE NEEDS OF CHILDREN WITH DISABILITIES IN PHYSICAL ACTIVITY SETTINGS

According to Jowsey (1992) few children with disabilities are able to follow a regular, conventional physical education and sport programmes successfully. If children with disabilities are to be included into the existing programmes, teachers will have to adapt programmes in various ways. Individual objectives, which focus on the child with a disability, might require providing the participant with adapted or alternate activities to ensure successful participation. This requires the appropriate

identification of physical activity goals and is an important aspect of planning the physical activity programmes (Sherrill, 1993).

Changes to the equipment, rules or pace at which the activity takes place may have to be considered (e.g. shorten the length of a striking implement). Teachers and coaches might have to extend themselves beyond their everyday roles, they might have to provide extra care and attention in the beginning to all those with disabilities who may require it. Working in close liaison with other professionals (e.g. physiotherapists, medical professionals) in the area of adapted physical activities might be necessary to ensure positive and practical inclusion. Specialists in the field of adapted physical activities may provide the physical educators with new ideas for activities and apparatus.

Jowsey (1992) states that if physical activity programmes are appropriately implemented, then children with disabilities are more appropriately challenged and are exposed to a wider variety of activities. The children with disabilities are also extended with regards to effort and teacher/parent expectations and they will begin to develop more positive attitudes as well as higher expectations of themselves. The physical activity curriculum is also more varied and exciting and the whole process will be more rewarding for both the children with disabilities as well as the teacher.

Sherrill (1993) describes several services that can be provided by adapted physical activity programmes. Apart from the importance of planning as mentioned above, assessment can also help determine the most appropriate placement of participants with disabilities into physical activities. Placement involves the grouping of the individuals with disabilities into teams, squads or partners within the physical activity setting, and in a manner, which enhances the movement experience for the individual. During participation in the physical activities, the educators and coaches have the opportunity to observe the progress that the children with disabilities are making in the physical activity settings. Another service that can be provided is the co-ordination of resources which implies that lessons taught in the physical activity environments can also be applied to everyday living and leisure activities. This may improve the quality of life in children with disabilities.

Weaver (1997) designed a programme to meet the needs of children with disabilities in physical activities at school level. The focus of the programme was to provide the children with and without disabilities with opportunities for interaction in settings, which were unique to their everyday settings. He identified several desired benefits after the programme had been implemented. Through the use of physical activities, opportunities were created for contact between children with and without disabilities. As a result the children with disabilities were able to work on skills together with other children (with and without disabilities) in a co-operative setting. Due to the fact that the games had been modified, the children with disabilities were able to complete the tasks at their own pace and after interaction together during the physical activities, children with and without disabilities exhibited increased self-esteem.

Thorough, correct assessment together with the ability to be open-minded and creative, to adapt according to individual needs and to do more than just being involved in the classroom physical activities, will allow the children with disabilities to truly experience the process of inclusion.

2.3.1 MEETING THE NEEDS OF CHILDREN WITH CEREBRAL PALSY

Due to the fact that children with cerebral palsy generally experience problems with voluntary movement control, physical activities should aim to achieve maximum potential in developing voluntary muscle control and functional motor skills. The emphasis of muscle relaxation should also be strongly considered (Porretta, 2000). Delayed motor development may also occur and thus early intervention must be applied in the form of daily big muscle activities. Children with cerebral palsy are more likely to develop problems with their weight-bearing joints due to postural problems. In order to improve postural problems sports, dance and aquatic activities can be used (Sherrill, 1993). Due to their lack of balance control, they may also have more accidents e.g. falling, tripping. The exercise environment should be made safe in order to the children to participate freely e.g. work on soft mats, remove all obstructive objects from the environments.

2.3.2 MEETING THE NEEDS OF CHILDREN WITH AMPUTATIONS

Often children with amputations use a prosthetic device to compensate for the loss of the limb. If the device is introduced early into the child's daily routines, it will be more easily incorporated into normal body actions. Physical educators and sports coaches can assist children with amputations of the upper limbs to develop gross motor skills such as catching, throwing and implement handling. Children with lower limb amputations should be encouraged to wear a prosthetic device as this will assist with balance and a steady walking gait.

Teachers should encourage such children to run, jump and skip with this device in order to exhibit better control of the body with the assistance of the device as well as the general development of motor skills and patterns.

2.3.3. MEETING THE NEEDS OF CHILDREN WITH SPINAL CORD IMPAIRMENTS

According to Kelly (2000) children with spinal cord impairments must undergo specialised treatment and rehabilitation, which takes place after the injury has occurred and the hospitalisation period is over. The rehabilitation period is of utmost importance and various everyday skills such as dressing and eating are re-learned.

Children with acquired spinal cord impairments may also undergo psychological counselling as such injuries tend to be traumatic and accepting a new lifestyle is sometimes difficult for the children.

When back at school and involved in education activities again, it is important that physical educators determine the needs of the children in regular physical education settings. This will assist with the appropriate instruction of such children.

Several important factors should be taken into account when assessing a child with a spinal cord impairment with regards to future inclusion in regular classroom and physical education settings (Kelly, 2000). Depending on whether the child is a paraplegic, quadriplegic or has spina bifida, or the cause is poliomyelitis, the questions of which muscles remain functional and which have been lost needs to be addressed. The remaining muscle strength should also be determined as well as the range of motion in the various joints. The presence or absence of sensation in the

limbs also plays a role in developing specific, individualised activities for the participants.

When working with a child with a spinal cord impairment in a physical education environment, several adjustments that could be made to enhance inclusion could be the following (Kelly, 2000):

- (i) Devices can be prepared which would assist with the gripping of implements.
- (ii) Assistance can be provided with the putting on and removing of assistive devices such as braces and with transfers to and from the wheelchairs where necessary.
- (iii) Adjustments can be made to the positioning of the child's wheelchair in relation to the activity and its required movements.
- (iv) Restraints can be used when supporting the child in his or her wheelchair e.g. strapping around the trunk and wheelchair to compensate for the loss of muscle control necessary to maintain a sitting position.

2.3.4 MEETING THE NEEDS OF CHILDREN WITH VISUAL IMPAIRMENTS

Craft and Lieberman (2000) also discuss points on including children with visual impairments successfully in regular physical education classes. They emphasise that simple modifications e.g. to equipment will assist the child to participate successfully in physical activities. Suggestions are made with regards to possible support systems, which can be implemented to assist children with visual impairments in inclusive settings. Trained peer tutors, specialised therapists or assistants to assist with kinaesthetic and auditory cues and specialised equipment such as balls with bells, brightly coloured implements etc. will assist in the process.

2.3.5 MEETING THE NEEDS OF CHILDREN WITH HEARING IMPAIRMENTS

It is clear that communication and the understanding of tasks might be the biggest problems facing children with hearing impairments in physical activity settings. Few rules, equipment and facilities would require to be modified but extra care should be

taken with instructions to ensure that inclusion is successful. Communication adaptations (sign language, written tasks etc.) will address the needs of the children with hearing impairments (Sherrill, 1993; Craft & Lieberman, 2000). The use of a peer tutor programme to alleviate or prevent communication problems may also be useful. This will also provide opportunities for socialisation between children with and without disabilities.

2.3.6 MEETING THE NEEDS OF CHILDREN WITH INTELLECTUAL IMPAIRMENTS

Including a child with a mild intellectual impairment might not be too difficult. However, clear and precise instructions, less abstract thinking (e.g. learning of sports strategies) and frequent repetition of tasks will enhance inclusion. In order to include a child with an intellectual impairment successfully several points need to be taken into consideration. In order to determine understanding of the tasks, specific responses to movement cues should be sought. The appointment of a peer to assist with the clarification of task instructions may improve the child with an intellectual impairment's understanding of the assigned activities. The provision of opportunities for the children to ask questions relevant to the activities being provided will also assist with successful participation in the inclusion activity settings. Most activity programmes should aim to enhance the cognition of the individuals with mild intellectual abilities. This may help prepare them for inclusion environments. At the same time, physical abilities may be strengthened and weaknesses will be identified and accepted by the individuals (Sherrill, 1993).

Children with Down's syndrome must be prevented from participating in high contact physical activities due to a condition called atlanto-axial instability. This is the malalignment of the cervical vertebrae C-1 and C-2 and as a result there is an increased risk of injury if they participate in activities which cause hyperextension or flexion of the neck (Goodman, 1993).

All children with and without disabilities should be provided with opportunities to participate in physical activities and sport. The careful design of appropriate tasks and activities can assist with the implementation of physical activity programmes, which will address the individual needs of all children. This process will also provide all children with the opportunities to participate together in an inclusive environment.

2.4 INCLUSION APPROACHES IN SOUTH AFRICA

Recently the National Commission on Special Needs in Education and Training (NCSNET, 1997) and National Committee for Education Support Services (NCESS, 1997) provided a public discussion document. The purpose of the document was to present preliminary findings and recommendations made by the two committees with regards to special needs and support for all learners as well as the development of quality education for all learners.

The vision of these two committees is to establish an education and training system, which realises the potential of all learners/children in inclusive and supportive centres. This system will assist the learners/children by providing them with opportunities to extend their potential and participate as equal members in society.

Principles guiding this vision correspond with the South African constitution as well as a number of White Papers on Education and Training. These principles include those identified by other researchers (Jowsey, 1992; Goodman, 1993; Sherrill, 1993; Weaver, 1997; Craft & Lieberman, 2000; Kelly, 2000; Porretta, 2000) e.g. the right to equality, an education system which is accessible and responsive to all learners. The reference to "Redress of past inequalities faced by previously disadvantaged groups in order to create equal opportunities for all people" (NCESS & NCSNET, 1997:11) shows the intention to fast track certain aspects.

Further principles included in the document by NCSNET and NCESS (1997) include the demand for human rights and social justice for all learners thus emphasising that every learner/child has the right to have access to quality education as well as to be treated with dignity and respect. Suggestions were made that a variety of social and educational opportunities should be made available to all learners/children. This will promote social integration of individuals and communities will be taught to mutually respect each other. Equal access to a single, inclusive education system requires an education system, which is responsive to diversity and is appropriate and effective. The summary states that all learners/children should have the opportunity to participate within the educational system regardless of their physical, intellectual, social, emotional, language or other differences.

All aspects of the educational curriculum should be accessible to all learners/children and where necessary, appropriate support should be provided to those who require it in order to function effectively within the curriculum.

2.4.1 CURRENT ORGANISATION OF SCHOOLS AND SUGGESTIONS FOR INCLUSION

Currently there are two school systems operational in South African schools. The first is known as ordinary education and the second as specialised education. According to NCSNET and NCESS (1997) specialised education is being organised in segregated settings which includes specialised education pre-school programmes, specialised schools for different needs e.g. for blind, autism etc. and residential institutions for severe and profound types of 'special needs'. The second type of organisation into specialised education settings is called mainstream programmes and includes adaptation/special education classes attached to ordinary schools and learners who are enrolled into ordinary classes but leave their classrooms to attend remedial classes. It also includes learners who are mainstreamed by default due to lack of facilities available to accommodate them separately and inclusive schools where deliberate attempts are made to integrate 'learners with special needs', providing the necessary support is available.

Initially the development of specialised settings took place due to the failure of regular schools to accommodate the diverse needs of all learners and in addition provide them with support where necessary. There are several positive aspects related to specialised classes and schools such as adaptations that are made to accommodate all learners, assistive devices and technology that are provided to the learners and access to adapted sport and physical education.

Whilst specialised schools and classes have provided rich learning programmes, there is criticism of the resultant social isolation which takes place. Separation of children from parents, families and communities may occur, long distances to schools limiting the involvement of parents and the scaling down of the general curriculum results in restricted career choices for the learners. The lack of facilities in rural and underdeveloped/disadvantaged areas may also negatively affect the proper education opportunities for the children involved.

The two committees did however recommend methods to address the needs of all learners within South Africa. They indicated that their first priority was to ensure that all children were included into the education system. Thereafter they planned to focus on providing improved quality education, which would be responsive to the needs of all learners.

(i) Inclusive ordinary centres of learning

The NCSNET and NCESS (1997) proposed changes to the ordinary centres of learning in South Africa, which would result in a barrier free environment, including access and a central placement within the community and an empowered governing body at the school, which would be equipped to develop a culture of learning, teaching and service. A policy for inclusion, accommodation and respect for humanity together with on-going human rights and anti-discrimination training and awareness programmes may mediate conflict situations. Educators who are equipped with the skills to perform well in the classroom will respond to learner diversity.

(ii) Segregated specialised centres of learning

Currently in South Africa, inclusive schools are operating from the philosophy that all children can learn and belong in the mainstream of school and community life. Thus inclusion is valued in these schools. Even though the aim of NCSNET and NCESS (1997) are to integrate all learners into the educational system, it has been recognised that a small percentage of learners will require specialised learning contexts based on their high level requirements for support. According to the two committees, this may take place in the form of classes within ordinary schools or in a specialised school or institution setting.

2.4.2 INCLUSION POLICIES IN COMPETITIVE SPORT

Disability Sport South Africa (DISSA) agrees that people with disabilities (including children) experience the same need for sport, including competitive sport, and recreation as people without disabilities. According to DISSA, sport is regarded as one of the vital components in the integration of people with disabilities into society. It is also often a vital component in the final successful rehabilitation of people with disabilities.

In April 1996, the National Sports Council held a conference to address their vision for sport. The theme of the conference was to discuss the implementation of their vision. The document presented by the council identified that sports projects needed to be implemented in order to achieve mass participation of all. In a paper presented by Goldhawk (1996) sport for the disabled was addressed. He stated that the biggest problems for participants with disabilities are access to facilities and proper coaching. Sport for the disabled in South Africa includes all disabilities, namely amputees, the visually impaired, those with cerebral palsy, individuals with hearing impairments, Les Autres, the intellectually impaired and participants with spinal cord impairments. One of the objectives that he identified was to make sport available for all disabled people in South Africa, regardless of where they live in South Africa. He stated that in order to assist with the development of sport for the disabled, issues such as coaching, facilities and equipment, time limitations and the financial situations should be addressed. He did emphasise that up until that point, there had already been major successes in providing for the needs of individuals with disabilities in sports including the large numbers of clubs and schools operating sports programmes for individuals with disabilities.

In 1997, an Integrated National Disability Strategy (INDS) was devised. Among the issues that were addressed was a policy objective, which stated that it is "important to develop and extend sporting activities for people with disabilities in both mainstream and special facilities so that they can participate in sport for both recreational and competitive purposes." With regards to sport and inclusion, the INDS agrees that inclusion will be the process through which the disabled are incorporated into sports for athletes without disabilities at all levels and into all clubs. Even though there is much anxiety amongst sports associations with regards to the successful inclusion of athletes with disabilities into sports and clubs, the INDS remains firm in its objective to include persons with disabilities into sports for competitive and recreational purposes.

In summary, the NCSNET and NCESS noted that many people with disabilities condemn the practice of labelling and social isolation of children with disabilities. Therefore in South Africa there are currently being objections made to separate placement on the basis of the child's disability. The argument to support this is that

the disability often does not have anything to do with the child's specific learning needs. Learners and athletes with disabilities may experience certain barriers to learning and sports participation because of problems engaging in the learning and sports structures. However, if the current problems in the educational and sports systems in South Africa are addressed and made more responsive to individual needs, this may not be considered a problem within schools and sports organisations for much longer.

In 2001, the Department of Education presented an Education White Paper (no. 6), which amongst other things addressed the development of a framework, which would establish an inclusive education and training system. The Department recognised that all children have the potential to learn within all sectors of education and that they require support to do so. Suggestions were also made for the provision of learner support systems such as specialised assistance by medical specialist etc. This may prevent the premature dropping out of learners should they be faced with barriers to learning. The Department stated that the establishment of a successful inclusion system would require changes to be made to mainstream education so that all learners who experience barriers to learning are identified, accommodated and assisted within the schools.

3. ATTITUDES TOWARD INCLUSION

Many persons in newly established inclusion environments have expressed negative attitudes towards the principle of inclusion and for various reasons. Negative attitudes towards the principle of inclusion may only serve as obstacles towards successful inclusion. Sherrill (1993) states that attitude change and formation are considered the most important focus of adapted physical activity. Attitude can be defined as someone's predisposition to approach or avoid something. These choices to approach or avoid something in turn leads to the formation of new attitudes with regards to the environment and self. Attitudes can be directed to anything ranging from objects, self, other persons, religion, a disability, a racial group etc. If a person holds an opinion towards any of these psychological objects, they are going through the first stage of belief formation. In other words, an opinion is an early judgement of something before we are sure of our beliefs.

If an individual feels uncomfortable around someone or something, he or she will identify the specific variables, which caused this unfavourable or unwanted feeling of discomfort. These variables result in attitude formation. Combined with beliefs and opinions, negative behaviours towards the offending variables are likely to occur.

Often, when individuals are perceived as different, others develop attitudes towards them and this may result in prejudice and discrimination. Prejudice is an attitude, which results in people avoiding situations, which may require contact with persons with disabilities. This kind of unfavourable opinion has been formed previously and without cause, thought and knowledge or reason. Discrimination occurs once a distinction has been made with regards to the individuals who are perceived as different. It is the physical act of being prejudiced towards someone.

Often when people are perceived as different this leads to stigmatisation, which is the unjust treatment of individuals who are perceived as different. Usually this is caused by a fear of the individuals who are different from the self or equating differences as being inferior and the belief that a person does not deserve the same respect and acceptance as others. Stereotyping is usually associated with the mistreatment of individuals without regard for their individuality. It stems from the lack of knowledge about a person or groups. Stereotypes may be good or bad.

The attitudes of a number of role players in the inclusion process in physical activities will determine the success thereof. It is necessary to be knowledgeable about the attitudes of teachers and physical educators, administrators and parents of children with disabilities. Information with regards to the attitudes of children (with and without disabilities) themselves would also assist with understanding the process more clearly.

3.1 ATTITUDES OF TEACHERS AND ADMINISTRATORS

"Attitude is believed to play a significant role in explaining physical educators' actions toward teaching students with disabilities in regular classes" (Folsom-Meek & Rizzo, 2002:141). Many teachers and physical educators who have had children with disabilities included into their classrooms tend to develop negative attitudes towards the children with disabilities (Horvat, 1990; Sideridis & Chandler, 1997). This may be as a result of lack of teacher training. Teachers without knowledge of how to work

with children with disabilities may feel stressed and overwhelmed by having to teach them in included settings. Horvat (1990), Sideridis and Chandler (1997) suggest that teachers may also exhibit a low estimation of the abilities of children with disabilities. This may result in the teacher accidentally misjudging the level of the child's competence and thus will have lower performance level expectations of the child. The perception that many teachers also have is that children with disabilities are not capable of learning and thus become even more of a perceived burden to the class. This will negatively affect the child's progress within the educational/physical education setting.

Lack of resources could be seen as a shortage of money in schools for adaptations to the school buildings (e.g. classrooms and other facilities) which will not be performed and will negatively affect the attitudes of teachers who have to work in these environments where equal access and opportunities are expected. Working with children with disabilities may require more time and attention of the teacher and this shortage of time for all individuals may lead to feelings of resentment in the teacher towards the children. Should there be a lack of support from administrative staff at the schools, teachers working in inclusion settings may feel isolated from the regular school environment. "Many teachers fear the liability or risk of injury with exceptional students" (Horvat, 1990:16). In other words, teachers may also feel that a child with a disability is a safety concern within the inclusive setting because of their disabilities. A negative attitude towards teaching such children increases the stress-levels of the teacher, which in turn leads to feelings of inadequacy. According to Horvat (1990) the teacher may also develop negative feelings through the perception that inclusion of children with disabilities will result in additional burden within the teaching environment.

Sideridis and Chandler (1997) conducted a study, which made use of a self-developed teacher questionnaire called The Teacher Integration Attitudes Questionnaire or TIAQ. This questionnaire was designed with regards to the inclusion of children with disabilities in regular education settings. They stated that up until that point there had been little empirical data analysed to identify the possible benefits of inclusion for children with disabilities as well as for the children without disabilities and teachers. The study was conducted in order to determine the efficacy

of inclusion as well as the benefits for children without disabilities, teachers and children with disabilities derived from such education. Their questionnaire consisted of four separate constructs namely skills, benefits, acceptance and support. In their results they identified similar causes to the ones that Horvat (1990) previously identified with regards to the development of negative attitudes in teachers.

A study conducted by Kozub and Porretta (1998) with regards to the inclusion of children with disabilities into regular sports programmes indicated that this should be done in a developmental pattern, beginning with inclusion in youth sports programmes. This early stage inclusion was vital for the learning of basic pre-requisite skills, which could later assist with participation in more complex sports and activities.

“Overall acceptance of athletes with disabilities into interscholastic sports programmes may be limited if a coach feels inadequately trained” (Kozub & Porretta, 1998:330). With appropriate preparation, teachers may enter the work environment better equipped both technically and emotionally to work with children with disabilities in regular classroom and physical education settings. Uncertainty with regards to training, resources and supports may hinder this approach, a barrier that must be overcome.

“To achieve the goal of inclusion, professional preparation must emphasise the development of positive intentions, beliefs and attitudes towards classroom behaviours” (Kudláèek, Válková, Sherrill, Myers & French, 2002:281).

Kudláèek et al. (2002) predicted several teacher abilities that future teaching staff may require when receiving specialised training to work with children with disabilities in a regular classroom environment. This abilities included beliefs and intentions, attitudes, knowledge and skill. Kudláèek et al. (2002) described two theories, which suggest that intention of teachers can be used to predict their future actions and behaviours. The two theories also suggest that variables exist, which may shape the intentions of such teachers. In the same way that Folsom-Meek and Rizzo (2002) discussed the effect of beliefs on attitudes, so to did Kudláèek et al. (2002). However, in the study conducted by Kudláèek et al. (2002), suggestions were made that indicated that beliefs underlie the perceptions that teachers have with regards to the

amount of control they have over their behaviour, resources and environment. Behavioural beliefs were also said to exert measures of control over the intentions of teachers to perform in specific ways within an inclusive setting. Thus in short, belief, intentions and attitudes were considered important in the teaching of children with disabilities in regular classroom and physical education settings. When confronted with difficult or trying situations, even the most sympathetic teacher may develop a poor attitude toward the child with a disability.

Folsom-Meek and Rizzo (2002) indicate that the intention to engage in a given behaviour e.g. teach children with disabilities is in fact the best predictor of behaviour. They state that attitudes towards behaviour are dependent on the belief of the individual regarding the outcomes and consequences of behaviour. In other words, teachers' attitudes towards teaching children with disabilities are dependent on their beliefs regarding the outcomes of teaching such children.

The assessment of beliefs would in fact assist with the identification of underlying attitudes and social expectations of teachers with regards to children with disabilities. According to the researchers, beliefs represent a person's past experiences as well as the person's knowledge about specific situations. In the results presented by Folsom-Meek and Rizzo (2002), beliefs with regards to outcomes of teaching children with disabilities in regular classes were identified. Teachers in their study had stated that children with disabilities would not be accepted by their peers and would disrupt the harmony of the class. Teachers stated that they thought that the inclusion of a child with a disability would result in an increased workload and this was an unfair additional burden. Some teachers did however agree that children with disabilities should be included into regular education settings wherever possible.

"Changing a learning environment to promote understanding and respect of individual differences is something to plan when teachers have students with disabilities in regular classes" (Folsom-Meek & Rizzo, 2002:148).

An administrator such as a school principal may have the same attitudinal tendencies as a school teacher towards the principle of inclusion. This may be as a result of the increase in administrative duties as well as increased responsibility and parental pressure from both the parents with children without disabilities and parents with

children with disabilities. An administrator with little experience in dealing with children with disabilities may thus develop a negative attitude towards the child (Jowsey, 1992).

School principals should model positive attitudes in the same manner as the school teachers. This will assist with the development of positive attitudes in the staff as well as in the children. It is important that the school principal does not accept the child with a disability into the school as a form of false compliance or in order to prevent controversy as this will not foster positive attitudes amongst the staff members (Horvat, 1990).

Horvat (1990) states that the school principal or administrator is responsible for providing a positive influence over teachers and children with disabilities. Without a positive influence, negative attitudes will continue to prevail within the schools. Care must be taken with regards to the needs of the child as well as those of the teacher involved. Administrators should also be aware of the fact that labelling a child with a disability will be disruptive to successful inclusion. This too might result in lowered expectations of the child's abilities and performance, and sometimes false generalisations may also be made. Horvat (1990) emphasised the importance of correct placement of the participants, after thorough assessment.

3.2 ATTITUDES OF PARENTS OF CHILDREN WITH DISABILITIES

Many parents of children with disabilities tend to overprotect their children and may be inclined to remove their child from a regular school/physical education environment in order to avoid the child being exposed to negative attitudes and situations they may consider to be unsafe (Jowsey, 1992). "Parents may also contribute to the expectation of low achievement and to poor attitudes by protectively limiting participation in physical activity rather than trying to help the student achieve the highest possible academic, as well as physical, performance" (Horvat, 1990:18). This low-level expectation will never provide the child with the motivation and encouragement that he or she will require in order to keep attempting to succeed in tasks and activities.

The overprotection of the child with a disability also eliminates the opportunities for the child to develop self-assurance and self-concept, even if there are certain risks

involved. This is due to the fact that it interferes with effective participation and thus successful inclusion of the child with a disability. The possibility that the attitudes of parents will directly affect the performance of children with disabilities is also recognised by Horvat (1990).

A possible solution suggested is that parents of children with disabilities should develop a good level of communication with the school principal and teachers involved with the education of their child in order to ensure that the child is given the same opportunities that are provided to the children without disabilities. This type of communication is said to be vital to successful inclusion.

If the parent has a negative attitude towards inclusion in physical activities it might be very difficult for teachers to have a positive attitude. Commitment and positive attitudes must start at home. Parents who struggle to come to terms with their child's disability require appropriate support and assistance. From this they will grow to understand, accept and encourage their children and will focus less on the failures and more on the achievements of the child. This kind of support is ultimately what the child requires.

3.3 ATTITUDES OF CHILDREN TOWARDS INCLUSION

3.3.1 ATTITUDES OF CHILDREN WITHOUT DISABILITIES

The attitudes of children without disabilities within the educational setting will affect the ultimate acceptance of the child with a disability as well as successful integration. A teacher with a positive attitude towards the child with a disability will model positive attitudes and behaviour, which in turn will be learnt and applied by the children without disabilities. This will also assist with peer acceptance, which will encourage understanding and should lead to appropriate interaction between the children (Horvat, 1990).

In a study conducted by Tripp, French and Sherrill (1995), it was found that in integrated settings children without disabilities had more positive attitudes towards children with disabilities than those who were tested in a separate setting. One benefit which is said to occur, as a result of inclusion into physical education programmes is positive attitudinal changes in children without disabilities

(Tripp, French & Sherrill, 1995). These positive attitudes in children without disabilities could be cultivated through planning by e.g. using equal status activities, which are rewarding for both children with and without disabilities. Persistence over time and the ranking of common goals over group goals may also achieve the same effect.

The direction of attitude change depends largely on the conditions under which contact takes place. Thus if the conditions are unfavourable and unpleasant one would expect the resultant attitudes to be negative. Likewise positive conditions may assist with the development of positive attitudes towards the principle of inclusion. An example of an unfavourable setting would be when there is competition between groups, when the environment is unpleasant, involuntary and tension laden or when group members as a whole are frustrated. Previous studies mentioned by Tripp, French and Sherrill (1995) indicated that children without disabilities from included settings described children with disabilities as more fun and more interesting than did children without disabilities from separate settings. Girls tended to have more positive attitudes towards children with disabilities than boys whilst other researchers found that gender did not play a role in attitudes. One study concluded that the type of disability made a difference to the attitudes of children without disabilities and that children with physical disabilities were rated more favourably than children with other disabilities. Children with emotional disabilities were rated as least favourable. The researchers were unable to generalise this to physical activity settings. It was also suggested that class size and teacher gender may play a role in the development of attitudes towards children with disabilities (Tripp, French & Sherrill, 1995).

Tripp, French and Sherrill (1995) suggested that these findings may affect the development of attitudes in children without disabilities. They concluded that contact between children with and without disabilities must be direct and personal in order to produce positive attitudes towards children with disabilities and their inclusion into regular classroom and physical education environments.

Zeman and Block (1996) state that the effect of inclusion on children without disabilities is often overlooked and that usually only the interests of children with disabilities are considered in the inclusive environment. In a study by them, they aimed to determine what the effect of the inclusion of children with severe disabilities

into regular physical education classes would be on children without disabilities and their motor skill and attitude development. They hypothesised that children without disabilities, who were systematically exposed to children with disabilities, would have a more positive attitude towards the inclusion of children with disabilities in regular physical education settings. They found that including children with severe disabilities into regular physical education settings did not have a negative effect on the children without disabilities. They also suggest that peer assistant programmes may help with the prevention of negative attitudes towards inclusion.

3.3.2 ATTITUDES OF CHILDREN WITH DISABILITIES

“Inclusive physical education compels teachers to embrace student diversity as an expected and valued attribute” (Goodwin & Watkinson, 2000:144). Perceived success within a physical education setting has been synonymous with being accepted into the existing social structures.

Goodwin and Watkinson (2000:145) state that “teachers and instructors continue to assume that their view of the world is the students’ view of the world and that they understand and know the needs and interests of their students”. Reference was made to the role of the environment with regards to how it determines where and how we live. Several environmental affordances were identified to emphasise the important role that the environment plays in our lives as well as what it provides us with.

Examples of the environmental affordances were the medium (e.g. air), surfaces and their layout (e.g. ramps), substances (e.g. water), objects (e.g. grasp-ability of an implement), animals and persons (e.g. teachers, peers) and places (e.g. for concealment or exposure). These affordances provide a framework for highlighting the experiences of children with disabilities within an inclusive physical education environment. In the future, research should be conducted to determine what children with disabilities “think, feel and know about their participation in Physical Education” (Goodwin & Watkinson, 2000:144).

According to Hutzler et al. (2002) published research mostly only covers teachers’ and peers’ attitudes and not the attitudes of the children with disabilities who are also involved. Often however, because children with disabilities are in the minority group

in schools, their needs are not met. This affects the child's sense of belonging and whether their peers within the physical education environment successfully accept them or not. They suggest that empowerment is an alternative to advocacy. They refer to empowerment as the gaining of control over one's life and assuming responsibility for any changes that occur such as an active lifestyle or positive mental health. They place emphasis on the need for children with disabilities to play an active role in their gathering and constructing of knowledge.

This can be accomplished by the combination of existing knowledge together with new experiences provided in the classroom and physical education environments. "This kind of learning should take place in contexts, which are personally meaningful to students" (Hutzler, Fliess, Chacham & Van den Auweele, 2002:301). Effectively the aim of empowering children with disabilities to gain control over their lives is in order to assist them to develop more positive attitudes towards participating in activities (sports and physical activities). The perception of being in control of the decisions made as well as playing an active role in physical activity programme development also supports this process.

The aim of their study was to determine supporting and limiting factors, which would affect the empowerment of children with disabilities in regular physical education settings. They discovered that adults are viewed as potential mediators for interaction between children with and without disabilities and also recommended that future interaction be promoted by parents and teachers by means of providing opportunities for peer support for example in sports clubs and similar associations. Thus, in the implementation of physical activities for children with and without disabilities, the role of others (e.g. teachers, parents and coaches) is important when attempting to include children with disabilities together with children without disabilities in regular physical activity settings.

3.4 STRATEGIES FOR OVERCOMING POSSIBLE NEGATIVE ATTITUDES

As the inclusion of children with disabilities is still a reasonably new concept in schools, it is possible that those involved in the inclusion process develop negative attitudes towards the children with disabilities. Should this occur, Horvat (1990)

suggests a number of ways to overcome negative attitudes towards the principle of inclusion.

By using peer tutors, steps are taken towards peer acceptance. Children without disabilities can be taught how to physically assist a child with a disability during the completion of the task. By teaching the child without a disability to assist, one also teaches him/her more about the disability and how the child with the disability must adjust in order to complete tasks that the children without disabilities complete with ease. This type of understanding may assist with the creation of positive attitudes and ultimately provides the child without a disability with an acceptable level of understanding. In service training helps to upgrade teaching methods and thus levels of understanding. It is also useful to involve personnel with skills to teach children with disabilities. They may assist with the modelling of positive attitudes as well as handling methods and specific approaches to specific disabilities.

The use of role models may assist with the development of positive attitudes as persons with disabilities may be brought in to give classroom speeches and to explain the nature of their disabilities as well as what they are able to do and not able to do. They can then discuss specific problems that they are faced with as well as answer any questions which the children may wish to have answered. One of the most appropriate methods for developing positive attitudes is participation in sport. Sport environments are exciting and fun and also provide physical and emotional benefits to participants. Sport also instils determination, perseverance, discipline and a sense of worth in participants. (This approach inspired the use of sports-related activities in the inclusion opportunities that were presented in this study.) Finally, practical experience introduces people to the vast spectrum of practical teaching and applications. Experience is one of the most valuable sources of knowledge. We learn better after having been exposed to on-hand, practical experience.

Jowsey (1992) states that in order to produce a worthwhile and valuable programme to all participants, the right balance must be found, as it is essential to the formation of correct strategies and goals for inclusion. There are a number of possibilities, which may be used, either separate or combined. They are simply methods of including a child with a disability into a regular task/physical education setting. Examples of such alternatives include environments where the child is integrated into

a regular setting but is assigned an assistant. The assistant should not stifle the child's independence or decision-making processes.

The child with a disability may require the help of the assistant in order to complete various tasks but only to a certain extent e.g. when gripping an object. Another possible form of inclusion could be when the child is integrated into a modified physical education setting where changes have been made to equipment, rules, response expected etc. The changes make the tasks easier. This is in order to ensure increased success in activity completion.

A form of parallel inclusion may be useful in that the child is integrated into the same setting, but works on different adapted tasks. Whilst the other children complete their assigned tasks, the child with a disability completes his or her own set of adapted tasks in the same physical education environment. In the same sense the child with a disability can work in an entirely separate setting with alternate or "segregated" activities. These activities are specially designed for the child to complete in order to enhance positive feelings towards participation in physical activities.

Another option is to take all participants to a "neutral" venue such as a local leisure/recreational centre. The facilities at such a centre may assist with the extension of the range of activities. The involvement of parents may also be useful and a contract system could be created whereby the parents and children are asked to 'sign a contract' to arrange and agree to regular attendance of the child to the activities and practice sessions outside the school setting.

It has been mentioned before that the greater the severity of the disability, the greater the need for an individualised programme or individual instruction. There should be few or no set rules and much flexibility, which is essential for creating an environment conducive to proper inclusion and possible instruction.

4. ADAPTING AND MODIFYING ACTIVITIES

The adaptation and modification of activities is sometimes essential when including children with disabilities into regular physical education. As far as possible as few changes should be made to activities and equipment as possible and should only be

made when necessary to ensure the successful completion of tasks for children with disabilities.

4.1 ADAPTING ACTIVITIES

Sherrill (1993) identified several principles, which could guide the process of adapting activities. She suggested that adapting the activities should be based on the individual, the environment and the interactions between the two. Thus adapting is achieved through individualisation. This is primarily the manipulation of variables, the changing of task requirements and the environmental conditions in order for every person to succeed.

Lieberman and Houston-Wilson (2002) describe another five basic principles, which may be followed when adapting activities to include children with disabilities.

- (i) Include the child with a disability in the adaptation decisions

It is important to first consider the child's opinions towards the activities/sports as well as the child's attitudes towards participating in the activities/sports. This will also instil a sense of ownership and responsibility in the child.

- (ii) Have as many choices as possible

This is important specifically with regards to equipment, environment, teaching styles, rule modifications etc.

- (iii) Partial participation/ physical assistance vs. sitting out of activities

Some activities may not be easily adaptable and thus this may result in the child with a disability requiring some form of assistance or even having to sit the activity out.

It is best to avoid this kind of situation, although one may include the child in another way by making him or her umpire/referee or ball collector etc.

- (iv) Offer the same variety of sports, games and recreational activities

In the same way that there are equipment, environment and teaching style choices, so there should be choices with regards to sports, games and recreational activities available to participate in.

(v) Community-based activities

According to Lieberman and Houston-Wilson (2002) this will result in increased public exposure of the children as well as increased public understanding and acceptance of the children with disabilities.

4.2 MODIFYING EQUIPMENT, RULES AND THE ENVIRONMENT

Adapting these variables may affect the teaching/learning process (Sherrill, 1993). Teaching style, verbal instructions, demonstrations, signals, time, duration etc. can all be varied. Lieberman and Houston-Wilson (2002) also identify several modifications, which can be made to equipment, rules and the environment when including children with disabilities into regular physical education settings. In many different physical activities, equipment is used. These could be modified to suit the needs of the individuals with disabilities. Many games are played according to rules, which could be adapted to ensure success and enjoyment for all. Environmental adaptations can also be considered when including children with disabilities into physical activities.

4.2.1 EQUIPMENT MODIFICATIONS

One can change almost anything to allow the participant to be more successful at the task. "Equipment modification is any modification that would make the participant more successful than when using the pre-existing equipment" (Lieberman & Houston-Wilson, 2002:58).

Reasons for lack of success by children with disabilities in completing tasks or activities may be due to the following:

(i) Lengthening/shortening the striking implement

A lack of grip strength will result in the inability of a child with a disability to grip implements and objects firmly and in a controlled manner. This has implications when the child participates in throwing, striking and catching activities. Lengthening or shortening the striking implement will assist the children whom have limited mobility, as usually the implement length will be shortened. For children with reduced

grip strength, a shorter implement will also result in lighter weight, which will make the implement more manageable.

(ii) Making the ball lighter/heavier

Due to an impairment in the child's limbs caused by a spinal cord injury, cerebral palsy, an amputation or any other disability, mobility of the limbs and body will be limited. Porretta (2000) identified three main types of cerebral palsy, all of which result in poor running, jumping and skipping abilities. Children with spinal cord impairments are often confined to wheelchairs and due to varying degrees of paralysis may exhibit problems with fine and gross motor skills (Kelly, 2000). Even with prosthetic devices, children with amputations may also move awkwardly and not be as proficient in the completion of activities which require mobility of the body and the limbs. Modifying the ball to make it lighter or heavier will assist both children with limited mobility as well as children with reduced grip strength.

A lighter ball will not hamper the remaining mobility of the child and will also make successful gripping more likely. By making an object larger, it will become more easily recognisable to a child with a visual impairment. A child with reduced mobility may require a larger ball in order to better manipulate it during an activity. A child with reduced grip strength may choose to use a smaller object, as it may be easier for them to control.

(iii) Using brighter coloured implements/equipment

Children with visual or hearing impairments have sensory deficiencies, which affect their understanding of instructions for tasks and activities (Craft & Lieberman, 2000). This modification will assist with focussing on the implements and equipment as brighter colours are more easily recognised by children with visual impairments. It is also important that individuals with hearing impairments have specific focal cues relating to the physical activities. Brightly coloured objects may act as an attention drawing tool when working with the individuals with hearing impairments.

4.2.2 RULE MODIFICATIONS

This requires a deviation from culturally accepted game, sports and recreational activity rules.

(i) Slow down the pace of the activity

For example: when participating in an invasion game, the speed of the game may be slowed down in order to ensure that the child with a disability is able to participate freely without being left behind.

(ii) Allow more chances to complete the task

For example: when competing in an target game, a child with a disability may require more chances to hit the target than the children without disabilities.

(iii) Take away certain rules

For example: in a game where a foul is called if the ball touches the feet of the participants. The rule can be removed as a child with a disability may continuously come into contact with the ball due to reduced limb and body control as well as reaction time usually required when attempting to avoid treading on the ball.

(iv) Remove a defender from the game

This is not ideal but may be necessary in order for the child with a disability to score a goal successfully. The defender that has been removed should be assigned another task within the activity, as it would not be fair to remove him or her from the activity entirely.

(v) Limiting or adding responsibility within the game structure

This may cause the child with a disability to feel more responsible and in control of aspects of the game. Making the child the "team captain" is an example of how to add to his or her level of responsibility within the activity.

4.2.3 ENVIRONMENTAL MODIFICATIONS

Environmental restrictions on the child are often only noticed once the child has already had a problem with them (Lieberman & Houston-Wilson, 2002). Possible methods for changing the environment are:

(i) Decrease distractions in the surrounding environment

Play the activity indoors or ensure that the outside environment is far from busy roads and buildings, which may provide distractions in the form of traffic and/or passers by.

(ii) Increase visual cues

The physical educator should insist that the children participating in the activities look at him or her regularly during the activity in order to gain activity related cues via visual communication e.g. a change in activity direction as indicated by the hands of the physical educator.

(iii) Limiting surrounding noise from the environment

This is best achieved by running the activities in an indoor centre, as few distractions are present in such a setting compared to an outdoor setting.

(iv) Changing the environmental lighting

This will assist children with visual impairments in terms of focussing on implements and objects within the activity environment.

(v) Increase playing area accessibility

Making the playing area more accessible to children with wheelchairs and other assistive devices will encourage participation in the activities.

All of these adjustments to the environment tend to increase the level of involvement in the tasks and activities. These are just examples of how easy it really is to change the environment and factors within it in order to accommodate everyone appropriately and successfully.

As previously mentioned, currently In South Africa, steps have been taken to establish appropriate inclusive education settings and to provide sports participation opportunities for all individuals with and without disabilities.

Support in terms of finances, teacher training, specialised services and other fields will also promote the more successful implementation of the suggested inclusion programmes. The reason why this support is so important is that physical activities and sport can provide children with and without disabilities with, amongst others, a variety of social, cognitive, affective, psychological and physical benefits.

Participation of all children together in the activities in turn will provide opportunities for interaction between the children and will assist with the successful inclusion of the children with disabilities into the regular educational (physical activities and sports) settings. It must be emphasised appropriate programme design, development and implementation are also key factors to take into account when attempting to include children with disabilities.

CHAPTER THREE

METHODOLOGY

This study explores the use of physical activities as a means to promote positive attitudes toward the principle of inclusion. Participation in physical activities is used in an attempt to promote positive attitudes of children with and without disabilities towards participating in physical activities together. The data gathered presents information with regards to the current patterns of inclusion of children with disabilities in non-LSSEN school, the involvement of children with disabilities in sports in LSSEN schools, the attitudes of the children with and without disabilities towards inclusion in physical activities as well as the attitudes of the children with and without disabilities towards participation in future inclusion opportunities. This chapter includes a description of the study design, the procedures followed and of the data analysis.

1. DESIGN

This study followed a descriptive research design. A description of children's attitudes was accomplished by means of pre-and post-test questionnaires presented to the participants during the course of the data collection stage. Both quantitative and qualitative information was gathered. Due to the time constraints posed by the schools and students participating in the study, it was not possible to have a control group. For the same reasons, a pilot study using the self-designed questionnaire was not conducted.

2. PROCEDURES

The following procedures were followed.

2.1 DESIGN OF THE QUESTIONNAIRES

The questionnaires were designed to establish the attitudes and feelings of children with and without disabilities towards inclusion of children with physical disabilities in physical activities prior to and after the inclusion experiences. Previous experience

with the design and evaluation of questionnaires for parents regarding inclusion were used as the basis for the formulation of this original measurement instrument.

Questions were included to determine the current level of inclusion of children with disabilities into physical education classes and sports at non-LSSEN schools. The current level of exposure of children without disabilities to children with disabilities in non-LSSEN schools was also addressed. Further assessment of the level of involvement of children with disabilities in physical activities and extramural sports specifically at LSSEN schools was conducted. Questions determining the attitudes of children with and without disabilities towards future inclusion opportunities were included into the questionnaires.

2.1.1 PRE-TEST QUESTIONNAIRES

Two pre-test questionnaires were developed for the purpose of this research, one for participants with and one for participants without disabilities (see Appendix A).

Questions were arranged specifically to answer the first main research question as well as the sub-questions as discussed in chapter one. The pre-test questionnaires can be divided into five sections:

- The first five questions included in the questionnaires determined the demographics of both of the groups of participants with and without disabilities.
- The following question requests children without disabilities to define the word “disability” and asks children with disabilities to explain how they feel about their condition. This was included to determine the level of understanding in the children towards disabilities and being disabled respectively.
- Thereafter, questions were placed in succession to determine the current patterns of inclusion and sports/physical activity involvement at non-LSSEN schools as well as LSSEN schools.
- A set of questions was included to determine the perceived attitudes of the participants with and without disabilities towards each other.

- In the remaining section, a question to determine the expected reactions of participants with and without disabilities towards the inclusion opportunities, was included.

2.1.2 POST-TEST QUESTIONNAIRES

Two sets of post-test questionnaires were developed for both participants with and without disabilities (see Appendix A). Questions in these questionnaires were also developed and arranged in a manner, which would successfully answer the second main research question together with the sub-questions as indicated in chapter one. The post-test questionnaires can be divided into four sections:

- The first five questions were included within the questionnaires to determine the demographics of both of the groups of participants involved in the inclusion opportunities.
- Questions were then arranged to determine the perceived feelings of the participants with and without disabilities towards each other after their inclusion experiences.
- In the third section of the post-test questionnaires, a question was provided to determine the attitudes of the participants with and without disabilities towards participation inclusion in future inclusion opportunities.
- In the final section, a question was provided which aimed to determine the attitudes of participants with and without disabilities towards inclusive sport and physical activities after having participated in the inclusion opportunities.

2.2 SELECTION OF SUBJECTS

Prior to any contact with potential schools that would be approached to participate in the inclusion opportunities, permission was required from Western Cape Education Department (WCED). Contact was made with relevant WCED personnel and after the approval of a research proposal submitted by the researcher, permission was granted to conduct the study and the Department made government schools accessible (see Appendix B).

Six regular schools were targeted, four of which were government schools and two of which were private schools. The two private schools made themselves available for participation in the inclusion opportunities and attended a total of two inclusion opportunities each. Four special (LSEN) schools were approached to participate in the inclusion opportunities. Two of the four schools agreed to participate. One LSEN school attended three of the four opportunities and the second special school attended the remaining inclusion opportunity. The children from the LSEN schools who attended the inclusion opportunities had physical disabilities, including spinal cord impairments, amputations and cerebral palsy.

Contact was initially made with the schools via the school principals. They were sent research and participation proposals either via post, e-mail or telephonically. Schools that were contacted via e-mail or telephone responded to the proposals they were sent more promptly than those schools that had been sent postal participation proposals.

During the course of the data collection stage, continued contact was maintained between the researcher and the participating schools. Contact was mainly maintained via e-mail or telephone, and where necessary personal meetings were held to discuss event details and requirements.

Whereas the school principals were the initial source of contact with the schools, all principals delegated responsibility for organisation of participation to either a physical educator or other specialised staff members' e.g. an occupational therapist in the case of one of the special schools. This allowed for more frequent and personal contact and arrangements for child participants were made.

Each teacher was required to provide a group of children between the ages of ten and 12 years and groups were to consist of no less than ten children and no more than 15 children in total. The names and ages of the children were requested and in the case of children with disabilities, assistive devices generally used by the children were listed. This was in order to adequately include the children with their assistive devices into the events.

2.3 DESIGN OF THE INCLUSION OPPORTUNITIES

Four inclusion opportunities were held and each opportunity was given a theme, namely picnic day, games day, dance day and sports day. Activities appropriate to the theme of the inclusion opportunities were utilised during each event (see Appendix D). Upon the commencement of the events, the participants were given time to interact and introduce themselves to each other. Thereafter they were divided into smaller groups and were introduced to various activities. Intervals for refreshments were also included into the event programmes. Upon completion of the activities, the children were requested to complete the post-test questionnaires and were assisted where necessary. They were then thanked for their participation and awarded certificates in recognition of their participation in the events.

2.4 RECRUITING OF SUPPORT STAFF

Third year and honours students specialising in adapted physical activity were recruited to assist with the running of the inclusion opportunities. Their duties included welcoming the participants and teachers, assisting the children during participation in the activities and assisting the children with disabilities in completing the post-test questionnaires.

2.5 DATA COLLECTION

In the week prior to each event, final contact was made with the teachers to ensure that all was in order for the event on the weekend. Any problems were dealt with and times for the start of the event were verified with the teachers. During this pre-event meeting with the teachers, all participating children were given information with regards to the event and were requested to complete the relevant pre-test questionnaires. Participants were also given the opportunity to ask questions with regards to the questionnaire as well as the pending event.

After the completion of the inclusion events, the participants were requested to complete the relevant post-test questionnaires. Student assistants present during each event assisted participants with disabilities with the completion of the questionnaires. Participants without disabilities completed the relevant

questionnaires individually and under the supervision of the accompanying school staff member.

3. ANALYSIS OF DATA

3.1 QUANTITATIVE DATA ANALYSIS

In both the pre-and post-test questionnaires, several questions required the ticking off of relevant answers. Thus these answers were analysed in a quantitative manner. The questions that were answered in this manner mainly assisted with the determination of the attitudes of the participants with and without disabilities towards each other.

3.2 QUALITATIVE DATA ANALYSIS

Both the pre-and post-test questionnaires contain sections of questions that require a written response. As a result, these sections will be analysed in a qualitative manner. All questions of this kind require the participants to provide reasons for their answers to selected questions. This is in order to gain additional information with regards to their attitudes as well as their reasoning behind their answers to specific questions.

4. SUMMARY

In this study, inclusion opportunities were used in an attempt to determine whether or not existing attitudes of children with and without disabilities towards each other could be influenced and made more positive through participation. An attempt was also made to determine whether inclusion in the opportunities could create interest in future opportunities.

CHAPTER FOUR

RESULTS AND DISCUSSION

In this chapter results derived from the pre- and post-test questionnaires will be presented in tables and discussed in an attempt to answer the research questions. Data for these results was gathered over a period of one month during which four inclusion events were held. Pre-test questionnaires were completed by all participants in the week prior to their respective events, and post-test questionnaires were completed on the day of the event, after completion of the event. Seventy-five participants (N = 75) participated in the study. A combination of participants with and without disabilities attended the inclusion opportunities. All participants whom attended from the non-LSEN school had no disabilities and all participants from the LSEN (Learners with Special Educational Needs) had physical disabilities.

Thirty-six (n = 36) participants without disabilities and 39 participants with disabilities (N = 75) completed the pre-test questionnaires (see Tables 1 and 2). The age range for participants without disabilities was nine years to 14 years and for participants with disabilities the range was eight years to 13 years. The largest number of participants fell within the 12 year age group. Forty-two girls (with disabilities: 22; without disabilities: 21) and 32 boys (with disabilities: 17; without disabilities: 15) participated. The biggest observed difference was in the grades represented by the children. Twelve of the 12 year old participants without disabilities were in grade seven, and eleven of the 12 year old participants with disabilities were in grade five.

Table 1. Demographics of the participants without disabilities who completed the pre-test questionnaire (n = 36).

Age (years)	Grade	Gender
9 (6)	4 (10)	Male (15)
10 (11)	5 (11)	Female (21)
11 (5)	6 (3)	
12 (11)	7 (12)	
13 (2)		
14 (1)		
n = 36	n = 36	n = 36

Table 2. Demographics of participants with disabilities who completed the pre-test questionnaire (n = 39).

Age (years)	Grade	Gender
8 (3)	1 (3)	Male (17)
9 (8)	2 (9)	Female (22)
10 (4)	3 (7)	
11 (3)	4 (9)	
12 (17)	5 (11)	
13 (4)		
n = 39	n = 39	n = 39

1. WHAT IS THE CURRENT SITUATION REGARDING INCLUSION OF CHILDREN WITH DISABILITIES IN THE SCHOOLS REPRESENTED IN THIS STUDY?

1.1 WHAT DO THE CHILDREN UNDERSTAND ABOUT THE TERM “DISABILITY”?

All participants were requested to comment on the word “disability” and indicate what they thought the word meant. A number of children from the non-LSEN schools (without disabilities) indicated disability meant having movement and intellectual problems or only movement problems, e.g. “that you can’t move some of your limbs or you have a slow learning brain; someone who is physically or mentally challenged; you can’t move some limbs and you have learning problems”, etc., whilst others indicated difficulties with general things, e.g. “person has difficulties in certain area of either school or sport”; “not able to function in a certain way,” etc .

The question for participants with disabilities (pre-test questionnaire) was as follows: “Write what you understand about having a disability”. A number of answers given by the participants with disabilities could be perceived as being positive, e.g. nice to walk with crutches; to walk with crutches is okay; I feel good, etc. Several from this group however thought that having a disability had a negative meaning, e.g. “not nice because it is hard; unhappy; it makes me feel bad,” etc.

Although some children with disabilities did not indicate “disability” as having a negative connotation, the majority felt that it indicated some extra movement

problems for the person and a number of the children without physical disabilities indicated that it also meant having an intellectual problem.

1.2 WHAT IS THE CURRENT PATTERN OF INCLUSION EXPERIENCED BY THE CHILDREN WHO PARTICIPATED IN THIS STUDY?

Determining the current patterns of inclusion of children with physical disabilities in non-LSSEN schools and in physical activity classes may indicate the present practical situation existing in schools (see Tables 3 and 4). Determining whether children at LSEN schools participate in physical education and after school sporting activities could also indicate current trends with regards to the use of physical activities in LSEN schools.

For the children without physical disabilities four questions were included to address the above material (question seven, eight, nine and ten on the pre-test questionnaire). For the participants with physical disabilities three questions were included to address the above-mentioned information (question seven, eight and nine).

Physical education for children without disabilities appears to be part of the school curriculum in the majority of the grades (four to seven). According to children with disabilities ($n = 39$), presently in grades one to five, physical education is not part of the curriculum (100%).

Nearly 50% of the participants without disabilities (44, 4%) indicated that they have friends or classmates who experience problems with moving independently (use wheelchairs, crutches or guide dogs) and clearly stated (83,3%) that these friends do not participate in everyday classroom activities or did not take part in physical education classes.

The present situation at non-LSSEN schools, as well as the experience of children without disabilities indicates that usually children with disabilities do not participate in physical activities.

Table 3. Current pattern of inclusion in non-LSEN schools (n = 36).

Question	Yes	No
Question 7: Do you do Physical Education at your school? (n = 36)	35 (97,2%)	1 (2,8%)
Question 8: Do you have friends or classmates who have problems moving, running and walking the same way you do or who have to move around in a wheelchair or with crutches or a guidedog? (n = 36)	16 (44,4%)	20 (55,6%)
Question 9: Do these classmates take part in everyday classroom activities? (n = 36)	6 (16,7%)	30 (83,3%)
Question 10: Do these classmates take part in PE classes? (n = 36)	4 (11,1%)	32 (88,9%)

Table 4. Current pattern of involvement of children with disabilities in physical education and sport (n = 39).

Question	Yes	No
Question 7: Do you do Physical Education classes at your school? (n = 39)	0	39 (100%)
Question 8: Are you able to take part in all PE and classroom activities that your teacher gives you to do? (n = 39)	37 (94,9%)	2 (5,1%)
Question 9: Do you take part in sports after school? (n = 38)	13 (34,2%)	25 (65,8%)

Even though 100% of the participants with disabilities indicated that they do not have physical education classes at their school, the majority (94,9%) indicated that they are able to participate in all classroom and physical activities provided to them by their teachers. With regards to extramural sports participation of the children with disabilities, 68,5% (n= 38) indicated that they do not take part in sports activities, even though it might be available to them (34,2% indicating participation in

extramural school sport). It thus appears that when children with physical disabilities limitations are asked to complete classroom and physical activities that the majority of the children are able to do so (94,9%). The physical capabilities of the children with physical disabilities are thus clearly indicated, despite the current situation, which shows that they do not participate in after school activities even though it might be available.

The literature study in this research clearly indicates the value of participation in physical activities for children with and without disabilities. Adapted physical education also provides children with disabilities with opportunities to learn, with the benefits of physical activity, with instruction in sports, and leisure activities and with high-quality education (Sherrill, 1993). Children with disabilities are able to adapt tasks and activities to suit their individual needs and have opportunities to participate in tasks together with other children in a co-operative manner. Through physical activities, all children discover new possibilities for individual development and learn to appreciate their and each others abilities.

2. WHAT ARE THE ATTITUDES TOWARD INCLUSION IN PHYSICAL ACTIVITIES HELD BY CHILDREN WITH AND WITHOUT DISABILITIES PRIOR TO PARTICIPATION IN FORMAL INCLUSION EXPERIENCES?

The perceived attitudes and perceptions of children with and without disabilities with regards to being included in the same physical activity opportunities, were determined in the pre-test questionnaires (questions 11, 12, 13 and 15). When comparing the results (see Tables 5 and 6), the feelings towards one another (question 11) were quite positive.

2.1 WHAT ARE THE ATTITUDES OF CHILDREN WITHOUT DISABILITIES TOWARD CHILDREN WITH DISABILITIES PRIOR TO THE INCLUSION OPPORTUNITIES?

2.2 WHAT ARE THE ATTITUDES OF CHILDREN WITH DISABILITIES TOWARD CHILDREN WITHOUT DISABILITIES PRIOR TO THE INCLUSION OPPORTUNITIES?

Ninety-six percent (96,1%, $n = 36$) of the children without disabilities had no negative feelings towards being around children with disabilities, whilst comparatively 84,6% of the children indicated that they were excited or did not mind being around children without disabilities. Eleven of the 75 children ($N = 75$) indicated that some kind of nervousness, shyness or sadness with regards to being around children whom they perceive as different due to their physical disabilities.

When asked how they would feel about children with disabilities attending the same school as them (question 12), 35 of the participants without disabilities (97,2%) indicated no negative feelings towards the suggestion. They expressed that they did not mind or were happy to have the children with disabilities attend the same school as them. Only roughly 3% of the participants indicated that they would feel nervous if children with disabilities were to attend the same school as them. In the pre-test questionnaire for children with disabilities the participants were asked how they would feel about attending a school for children without disabilities. In response to this question 28 (71,8%) of the participants stated that they would be excited and did not mind attending the same school as children without disabilities. Twenty-eight percent (28,2%; $n = 39$) of the participants however indicated that they would feel shy, irritated or scared or preferred their own school.

Similar results were obtained from data collected in question 13, which asked the participants with and without disabilities to indicate how they would feel about children with and without disabilities participating in the same sports as them. Ninety-seven percent (97,1%, $n = 35$) of the participants without disabilities indicated that they would feel happy and excited or wouldn't mind the children with disabilities participating in the same sports as them. The participants with disabilities displayed similar results with regards to this question with 94,9% ($n = 39$) of them also indicating that they would feel excited or did not mind. Eight percent (8%) of the children with and without disabilities expressed that the children with disabilities should take part in (2,9%) or wanted to take part in (5,1%) separate sports.

In question 15, when asked how they would feel about playing together with children with and without disabilities, 35 (97,2%) of the participants without disabilities indicated that they would feel happy, excited or would not mind playing together with children with disabilities. Comparatively 97,4% ($n = 39$) of the participants with

disabilities expressed feelings of excitement or did not mind the suggestion of playing together with children without disabilities.

The remaining 5,4% of the participants with and without disabilities did however indicate that they would feel nervous or angry if they were to play together with children with and without disabilities respectively.

To supplement this section in terms of information with regards to attitudes of the participants a further question (question 14) was included into the pre-test questionnaires. It asked the participants to provide written reasons for their answers to question 13. Many of the participants without disabilities provided reasons that indicated a positive perception and sense of acceptance of children with disabilities, e.g. because they are the same as every other person in the world; I don't mind disabled children having fun. I'm happy that they are able to play; because they are children just like us, etc. whilst others indicated that they did not mind the idea of being included together with children with disabilities. Some participants stated that they were excited and wished to assist the children with disabilities where possible. A small number of participants without disabilities did express feelings of apprehension and being scared.

In the written responses provided by the participants with disabilities, several stated that they were looking forward to the opportunities to play with others, to try new things and to meet new people, e.g. cause you can meet new friends; because it would be fun to take part in a different sport, etc. A small number of participants with disabilities did express their doubts and were afraid that the children without disabilities would be rude or mean to them.

Overall however, results clearly indicate the positive trend in attitudes of children without disabilities towards interacting in school and physical activities together with children with disabilities prior to participation in inclusion opportunities. The same trend occurs within the results derived from the children with disabilities who also display a high percentage of positive reactions to suggestions of participating in classes and physical activities together with children without disabilities. A smaller percentage of the participants with and without disabilities exhibited negative feelings towards participating in school and physical activities together. As discussed in the literature review, these attitudes of children without disabilities within the educational

setting will affect the ultimate acceptance of the child with a disability as well as successful integration (Horvat, 1990).

Table 5. The perceived attitudes of participants without disabilities towards children with disabilities (n = 36).

Question	Results and percentages (%)	
Question 11: How do you feel around children with disabilities? (n = 36)	Don't mind	23 (63,9%)
	Happy	8 (22,2%)
	Scared	3 (8,3%)
	Shy	2 (5,6%)
	Irritated	0
Question 12: How do you feel about children with disabilities attending the same school as you?(n = 36)	Don't mind	19 (52,8%)
	Happy	16 (44,4%)
	Nervous	1 (2,8%)
	Angry	0
	Irritated	0
	Shy	0
Question 13: How do you feel about children with disabilities taking part in the same sport as you? (n= 35)	Don't mind	16 (45,7%)
	Happy	12 (34,3%)
	Excited	6 (17,1%)
	They should take part in separate sports	1(2,9%)
	Irritated	0
	Nervous	0
	Angry	0
Question 15: How do you feel about playing together with children with disabilities? (n = 36)	Don't mind	17 (47,2%)
	Happy	13 (36,1%)
	Excited	5 (13,9%)
	Angry	1 (2,8%)
	Nervous	0
	Scared	0

Table 6. The perceived attitudes of participants with disabilities towards children without disabilities (n = 39).

Questions	Results and percentages (%)	
<p>Question 11:</p> <p>How do you feel around children who do not have a disability? (n = 39)</p>	Excited	30 (76,9%)
	Don't mind	3 (7,7%)
	Nervous	3 (7,7%)
	Shy	2 (5,1%)
	Sad	1 (2,6%)
	Irritated	0
	Angry	0
<p>Question 12:</p> <p>How do you feel about attending a school where there are children who do not have a disability? (n = 39)</p>	Excited	25 (64,1%)
	Prefer my own school	6 (15,4%)
	Don't mind	3 (7,7%)
	Shy	2 (5,1%)
	Irritated	2 (5,1%)
	Scared	1 (2,6%)
	Don't want	0
<p>Question 13:</p> <p>How would you feel about taking part in sports together with children who do not have a disability? (n = 39)</p>	Excited	31 (79,5%)
	I don't mind	6 (15,4%)
	Don't want to	2 (5,1%)
	Nervous	0
	Irritated	0
	Shy	0
<p>Question 15:</p> <p>How would you feel about playing with children who do not have disabilities? (n = 39)</p>	Excited	23 (59%)
	Happy	14 (35,8%)
	Don't mind	1 (2,6%)
	Nervous	1 (2,6%)
	Irritated	0
	Angry	0
	Scared	0

**2.3 WHAT ARE THE EXPECTATIONS OF CHILDREN WITHOUT DISABILITIES
TOWARDS THE INCLUSION OPPORTUNITIES PRIOR TO
PARTICIPATION?**

**2.4 WHAT ARE THE EXPECTATIONS OF CHILDREN WITH DISABILITIES
TOWARDS THE INCLUSION OF OPPORTUNITIES PRIOR TO
PARTICIPATION?**

Question 16 of the pre-test questionnaires for participants with and without disabilities asks them to indicate what they expect from participating in the inclusion activities.

Thirty-five (97,3%) of the participants without disabilities indicated that they expected to have fun or feel happy while participating in the activities. The children with disabilities responded by indicating that 94,8% of them expected to feel happy or to have fun during the inclusion opportunities. Three participant (5,2%) with and (2,7%) without disabilities indicated that they expected to feel shy or confused while taking part in the inclusion activities together with each other. Overall however, general expectations of the children with and without disabilities towards the inclusion opportunities appear to be positive.

Table 7. Expectations of participants without disabilities prior to the inclusion opportunities (n = 36).

Question	Results and percentages (%)	
Question 16: What do you expect from taking part in activities together with children with disabilities? (n = 36)	To have fun	29 (80,6%)
	To feel happy	6 (16,7%)
	To feel shy	1 (2,7%)
	To feel confused	0
	To feel irritated	0
	To feel nervous	0
	To feel angry	0

Table 8. Expectations of participants with disabilities prior to the inclusion opportunities (n = 39).

Question	Results and percentages (%)	
Question 16: What do you expect from taking part in activities together with children who do not have disabilities? (n = 39)	To feel happy	19 (48,7%)
	To have fun	18 (46,1%)
	To feel shy	1 (2,6%)
	To feel confused	1 (2,6%)
	To feel irritated	0
	To feel nervous	0
	To feel angry	0

3. WHAT ARE THE ATTITUDES TOWARDS INCLUSION HELD BY CHILDREN WITH AND WITHOUT DISABILITIES AFTER FORMAL INCLUSION EXPERIENCES?

The post-test questionnaires and their component questions can be divided into four sections, namely:

- Demographics: question one – five
- The attitudes and feelings of children with and without disabilities after participation in inclusion opportunities: questions six, eight, 10 and 13.
- The attitudes of children with and without disabilities towards participation in future inclusion opportunities: question 11.
- The attitudes of children with and without disabilities towards inclusion in physical activities and sports after attending inclusion opportunities: question 14.

Thirty-four (n = 34) participants without disabilities and 37 (n = 37) participants with disabilities (N = 71) completed the post-test questionnaires (See Tables 9 and 10). Forty-one girls (with disabilities: 22; without disabilities: 19) and 30 boys (with disabilities: 15; without disabilities: 15) participated. Again the biggest observed difference was in the grades represented by the children. Eleven of the 12-year old participants without disabilities were in grade seven, and eleven of the 12 year old

participants with disabilities were in grade five. The age range for participants without disabilities was nine years to 14 years and for participants with disabilities eight years to 13 years. The largest number of participants fell within the 12-year age group.

Table 9. Demographics of the participants without disabilities who completed the post-test questionnaires (n = 34).

Age (years)	Grade	Gender
9 (6)	4 (10)	Male (15)
10 (9)	5 (10)	Female (19)
11 (6)	6 (3)	
12 (10)	7 (11)	
13 (2)		
14 (1)		
N = 34	n = 34	n = 34

Table 10. Demographics of the participants with disabilities who completed the post-test questionnaires (n = 37).

Age (years)	Grade	Gender
8 (3)	1 (3)	Male (15)
9 (7)	2 (7)	Female (22)
10 (5)	3 (7)	
11 (2)	4 (9)	
12 (16)	5 (11)	
13 (4)		
N = 37	n = 37	n = 37

- 3.1 WHAT WERE THE PERCEIVED FEELINGS OF CHILDREN WITHOUT DISABILITIES TOWARD CHILDREN WITH DISABILITIES AFTER PARTICIPATION IN THE INCLUSION OPPORTUNITIES?
- 3.2 WHAT WERE THE PERCEIVED FEELINGS OF CHILDREN WITH DISABILITIES TOWARD CHILDREN WITHOUT DISABILITIES AFTER PARTICIPATION IN THE INCLUSION OPPORTUNITIES?

When asked how they felt whilst participating in the inclusion events, 32 (94,1%) participants without disabilities indicated that they felt excited or that they had fun

compared to the 33 (89,2%) participants with disabilities who stated the same. In response to question six three participants with and without disabilities indicated that they had felt shy whilst participating in the inclusion opportunities. A further 8,1% (n = 37) of the participants with disabilities indicated that they felt nervous whilst participating in the activities together with children without disabilities. As indicated by the results, the general reaction towards having participated in the inclusion activities appears to be positive (see Tables 11 and 12).

Sixty-six (88%) of the participants with and without disabilities (N = 71) stated that they had fun, felt excited or didn't mind participating in the inclusion activities together with each other. The remaining five participants (12%) indicated that they had felt shy or irritated towards each other whilst participating in the events. When asked how their feelings had changed towards children with disabilities, 100% of the participants without disabilities indicated that they felt more comfortable, more happy and less nervous around the children. Eighteen (48,6%) of the participants with disabilities stated that their feelings had changed after attending the opportunities and that as a result they felt more comfortable, more happy and less nervous around children without disabilities. It would thus appear that the inclusion opportunities did change the attitudes of several participants towards each other and were made more positive.

Question 13 of the post-test questionnaires ask the participants with and without disabilities how they thought they felt around each other now. Sixty-nine (92%) of the participants indicated that they now felt excited, happy or did not mind being around each other. The remaining participants with disabilities indicated that they either still felt shy or angry around children without disabilities.

Questions seven and nine of the post-test questionnaires required the participants to provide written reasons for their answers to questions six and eight respectively. These statements may assist with determining whether the attitudes of the participants were more positive or negative after participating in the inclusion opportunities. Many participants without disabilities stated that they had fun being with new people and specifically children with disabilities, e.g. it was fun and exciting to be with them, etc. One or two participants did admit that that didn't enjoy having to

assist their partners with disabilities, e.g. in the ball passing I ran the whole time to fetch the ball, etc.

The participants with disabilities also expressed feelings of enjoyment after the activities and appeared to have enjoyed meeting new children and participating together with them. A small number of participants did express their apprehension at participating with children whom they did not know, e.g. Ek ken hulle nog nie reg nie – *I don't know them well yet*, etc.

Overall, when all the results from this section are addressed it appears that the general feeling towards each other is positive for children with and without disabilities and that the inclusion opportunities do promote more positive feelings towards each other, too.

In the literature review, Jewett and Bain (1985) identified several aims for physical education that would assist with the promotion of social skills amongst children. They were socio-cultural aims that aimed to develop skills for interaction with others as well as skills for healthy participation and competition amongst children. They also stated that the socio-cultural aims of physical education could provide children with opportunities for responsibility, sportsmanship, independence, leadership and many other qualities. This would assist with the development of an appreciation of the limitations and capabilities of others and the self. Inclusion opportunities such as the ones presented in this research can provide children with and without disabilities with opportunities to interact and better develop their social skills.

Table 11. The perceived feelings of children without disabilities towards children with disabilities after participation in the inclusion opportunities (n = 34).

Questions	Results and percentages (%)	
<p>Question 6:</p> <p>How did you feel today while you were taking part in the event? (n = 34)</p>	I had fun	23 (67,6%)
	I was excited	9 (26,5%)
	I was shy	2 (5,9%)
	I felt nervous	0
	I got irritated	0
	I felt angry	0
<p>Question 8:</p> <p>How did you feel about participating together with the children with disabilities today? (n = 34)</p>	I had fun	19 (55,9%)
	I was excited	8 (23,5%)
	I didn't mind	6 (17,7%)
	I was shy	1 (2,9%)
	I was irritated	0
<p>Question 10:</p> <p>Have your feelings changed towards children with disabilities after attending the event? (n = 34)</p>	I feel more comfortable	20 (58,8%)
	I feel more happy	11 (32,4%)
	I feel less nervous	3 (8,8%)
	I feel more uncomfortable	0
	I feel less irritated	0
	I feel more angry	0
<p>Question 13:</p> <p>How do you feel around children with disabilities now? (n = 34)</p>	I don't mind	15 (44,1%)
	I feel excited	10 (29,4%)
	I feel happy	9 (26,5%)
	I feel shy	0
	I feel angry	0
	I feel nervous	0

Table 12. The perceived feelings of children with disabilities towards children without disabilities after participation in the inclusion opportunities (n = 37).

Questions	Results and percentages (%)	
<p>Question 6:</p> <p>How did you feel today while you were taking part in the event? (n = 37)</p>	I had fun	21 (56,8%)
	I was excited	12 (32,4%)
	I felt nervous	3 (8,1%)
	I was shy	1 (2,7%)
	I got irritated	0
	I felt angry	0
<p>Question 8:</p> <p>How did you feel about participating together with the children without disabilities today? (n = 37)</p>	I had fun	16 (43,3%)
	I was excited	12 (32,4%)
	I didn't mind	5 (13,5%)
	I was shy	3 (8,1%)
	I was irritated	1 (2,7%)
<p>Question 10:</p> <p>Have your feelings changed towards children without disabilities after attending the event? (n = 37)</p>	I feel more happy	9 (50%)
	I feel more comfortable	7 (38,9%)
	I feel less nervous	2 (11,1%)
	I feel more uncomfortable	0
	I feel less irritated	0
	I feel more angry	0
<p>Question 13:</p> <p>How do you feel around children without disabilities now? (n = 37)</p>	I feel excited	18 (48,7%)
	I feel happy	10 (27%)
	I don't mind	7 (18,9%)
	I feel angry	1 (2,7%)
	I feel nervous	1 (2,7%)
	I feel shy	0

3.3 WHAT WERE THE PERCEIVED FEELINGS OF CHILDREN WITHOUT DISABILITIES TOWARD PARTICIPATION IN FUTURE INCLUSION OPPORTUNITIES?

3.4 WHAT WERE THE PERCEIVED FEELINGS OF CHILDREN WITH DISABILITIES TOWARD PARTICIPATION IN FUTURE INCLUSION OPPORTUNITIES?

When asked whether they would like to attend future inclusion opportunities together with each other, all participants (98,6%) except for one indicated that they would like

to attend future opportunities. This clearly indicates the value of inclusion opportunities with regards to the formation of positive attitudes towards inclusive activities for children with and without disabilities (see Tables 13 and 14). When asked to justify their answers to question 11, the participants without disabilities indicated that they had enjoyed participating with the children with disabilities and that they were very excited to participate together with them again, e.g. it was fun and I'd like to do it again, etc. The participants with disabilities stated that they too would like to attend future inclusion opportunities because they had fun together with the children without disabilities and they enjoyed playing games with them, too, e.g. fun to play with other children; ek sal weer wil kom – *I would like to come again*, etc.

Table 13. Attitudes of children without disabilities towards participation in future inclusion opportunities (n = 34).

Question	Yes	No
Question 11: Would you like to attend another event together with children with disabilities again? (n = 34)	34 (100%)	0

Table 14. Attitudes of children with disabilities towards participation in future inclusion opportunities (n = 37).

Question	Yes	No
Question 11: Would you like to attend another event together with children without disabilities again? (n = 37)	36 (97,3%)	1 (2,7%)

4. WHAT WERE THE ATTITUDES OF CHILDREN TOWARD INCLUSION IN SPORTS AND PHYSICAL ACTIVITIES AFTER PARTICIPATION IN THE INCLUSION OPPORTUNITIES?

4.1 WHAT WERE THE ATTITUDES OF CHILDREN WITHOUT DISABILITIES TOWARD INCLUSION IN SPORTS AND PHYSICAL ACTIVITIES AFTER PARTICIPATION IN THE INCLUSION OPPORTUNITIES?

4.2 WHAT WERE THE ATTITUDES OF CHILDREN WITH DISABILITIES TOWARD INCLUSION IN SPORTS AND PHYSICAL ACTIVITIES AFTER PARTICIPATION IN THE INCLUSION OPPORTUNITIES?

Question 14 of the post-test questionnaires asked the participants with and without disabilities whether they thought children with and without disabilities should be included into sports and physical activities or not (see Tables 15 and 16). Thirty-two (N = 71) participants agreed that children with and without disabilities should always be included into sports and physical activities together. This is a positive reaction and should be used to encourage future attempts to include children with disabilities into sports and physical activities. Some of the reasons given by the participants (question 15) indicated that they enjoyed the interaction that occurred during the inclusive activities. A further 36 (N = 71) participants indicated that children with and without disabilities should sometimes be included into sports and physical activities together. When asked to provide reasons for their answers (question 15) several of the participants without disabilities stated that they were concerned for the safety of the children with disabilities. They also expressed worries with regards to the emotional satisfaction of the children with disabilities, especially if they found themselves unable to complete certain tasks. Eight percent (8,1%; n = 37) of the participants with disabilities stated that they thought that children without disabilities should participate in sports and physical activities separately from them. Reasons given by the participants with disabilities with regards to these answers ranged from wanting to participate in activities alone, to a degree of remaining uneasiness around the children without disabilities.

Table 15. Attitudes of children without disabilities towards inclusion in sports and physical activities (n = 34).

Question	Always	Never	Sometimes
Question 14: Do you think that children with disabilities should participate together with children without disabilities? (n = 34)	12 (35,3%)	0	22 (64,7%)

Table 16. Attitudes of children with disabilities towards inclusion in sports and physical activities (n = 37).

Question	Always	Never	Sometimes
Question 14: Do you think that children without disabilities should participate together with children with disabilities? (n = 37)	20 (54,1%)	3 (8,1%)	14 (37,8%)

5. HOW DO CHILDREN DESCRIBE CHANGES IN THEIR FEELINGS AFTER PARTICIPATION IN INCLUSION OPPORTUNITIES?

Several questions in both the pre- and post-test questionnaires for participants with and without disabilities can be compared in order to identify changes the children reported in their attitudes. The following questions from the pre- and post-test questionnaires for participants without disabilities will be compared with each other in terms of results:

- Pre-test question 11 and post-test question 13: Feelings around children with disabilities
- Pre-test question 13 and post-test question eight: Feelings about participating in the same activities
- Pre-test question 16 and post-test question six: Expectations and feelings while participating in the inclusion activities

5.1 HOW DO CHILDREN WITHOUT DISABILITIES DESCRIBE CHANGES IN THEIR FEELINGS TOWARD INCLUSION AFTER PARTICIPATION (QUANTITATIVE SCALES)?

When the results shown in Table 17 are compared, it is clear that all of the participants without disabilities felt positive towards children with disabilities after participating in the inclusion opportunities. This is opposed to the 86,1% who indicated positive feelings towards children with disabilities prior to the inclusion opportunities.

Table 17. Pre- and post-test changes in descriptions of feelings reported by children without disabilities.

Question	Results	Question	Results
Question 11: How do you feel around children with disabilities? (n = 36)	Don't mind 23 (63,9%) Happy 8 (22,2%) Scared 3 (8,3%) Shy 2 (5,6%) Irritated 0	Question 13: How do you feel around children with disabilities now? (n = 34)	Don't mind 15 (44,1%) Excited 10 (29,4%) Happy 9 (26,5%) Shy 0 Angry 0 Nervous 0
Question 13: How do you feel about children with disabilities taking part in the same sports as you? (n = 35)	Don't mind 16 (45,7%) Happy 12 (34,3%) Excited 6 (17,1%) They should take part in separate sports 1 (2,9%) Irritated 0 Nervous 0 Angry 0	Question 8: How did you feel about participating together with children with disabilities today? (n = 34)	I had fun 19 (55,9%) I was excited 8 (23,5%) I didn't mind 6 (17,7%) I was shy 1 (2,9%) I was irritated 0
Question 16: What do you expect from taking part in the activities together with children with disabilities? (n = 36)	To have fun 29 (80,5%) To feel happy 6 (16,7%) To feel shy 1 (2,8%) To feel confused 0 To feel irritated 0 To feel nervous 0 To feel angry 0	Question 6: How did you feel today while taking part in the event? (n = 34)	I had fun 23 (67,6%) I was excited 9 (26,5%) I was shy 2 (5,9%) I got irritated 0 I felt nervous 0 I felt angry 0

Thirty-four (97,1%) participants without disabilities felt positive towards children with disabilities prior to participation in the inclusion opportunities. After participation in the inclusion opportunities, the same percentage (97,1%) of participants without disabilities indicated that they felt excited and happy whilst participating together with

the children with disabilities. They also indicated that they did not mind participating in the activities together with them. Three percent of the participants without disabilities did state that they had felt shy during the events. Overall, the positive attitudes of the children without disabilities remained the same from prior to the events to after participation in the events. Thus it can be reasoned that participation in the events did not change the positive nature of their attitudes and did not result in the formation of negative attitudes towards children with physical disabilities.

Thirty-five (97,2%) of the participants without disabilities expressed positive expectations towards participating in the inclusion opportunities prior to the events. After completion of the events, 94,1% of the participants indicated that they had in fact had fun whilst participating in the activities together with children with physical disabilities. Prior to the events, three of the participants indicated that they expected to feel shy and after the event an additional participant expressed having felt shy during the activities. Overall, the majority of the participants did experience the positive reactions that they had predicted to experience prior to the events.

5.2 HOW DO CHILDREN WITH DISABILITIES DESCRIBE CHANGES IN THEIR FEELINGS TOWARD INCLUSION AFTER PARTICIPATION (QUANTITATIVE SCALES)?

Prior to participation in the inclusion opportunities, 84,6% of the participants with disabilities indicated that they felt positive around children without disabilities (see Table 18). After participation in the inclusion opportunities, 94,6% of the participants indicated positive feelings thus resulting in a 10% increase in positive attitudes towards children without disabilities. There was also a reduction in the number of negative attitudes reported by the participants after the event when compared the number reported prior to the opportunities.

Table 18. Pre- and post-test changes in descriptions of feelings reported by children with disabilities.

Question	Results	Question	Results
Question 11: How do you feel around children without disabilities? (n = 39)	Excited 30 (76,9%) Don't mind 3 (7,7%) Nervous 3 (7,7%) Shy 2 (5,1%) Sad 1 (2,6%) Irritated 0 (0%) Angry 0 (0%)	Question 13: How do you feel around children without disabilities now? (n = 37)	I feel excited 18 (48,7%) I feel happy 10 (27%) Don't mind 7 (18,9%) Angry 1 (2,7%) Nervous 1 (2,7%) Shy 0 (0%)
Question 13: How do you feel about taking part in sports together with children who do not have a disability? (n = 39)	Excited 31(79,5%) I don't mind 6 (15,4%) Don't want to 2 (5,1%) Nervous 0 (0%) Irritated 0 (0%) Shy 0 (0%)	Question 8: How did you feel about participating together with children without disabilities today? (n = 37)	I had fun 16 (43,2%) I was excited 12 (32,4%) I didn't mind 5 (13,5%) I was shy 3 (8,1%) I was irritated 1 (2,7%)
Question 16: What do you expect from taking part in the activities together with children who do not have disabilities? (n=39)	To feel happy 19(48.7%) To have fun 18(46.2%) To feel shy 1 (2.6%) To feel confused 1(2.6%) To feel irritated 0 To feel nervous 0 To feel angry 0	Question 6 How did you feel today while taking part in the event? (n=37)	I had fun 21(56,8%) I was excited 12(32.4%) I felt nervous 3(8.1%) I was shy 1(2.7%) I got irritated 0 I felt angry 0

In the pre-test, 94,9% of the participants with disabilities indicated that they felt positive towards participating in sports together with children without disabilities. When compared to the results from the post-test questionnaire it appears that the percentage of positive attitudes towards children without disabilities has decreased by roughly 5 %. This may be as a result of an 8,2% increase in participants who indicated that they felt more shy around children without disabilities as opposed to prior to the opportunities.

When asked what they expected to feel whilst participating in the inclusion opportunities, 94,9% of the participants with disabilities indicated that they expected to feel happy and to have fun. After participating in the activities, 89,2% of the

participants with disabilities indicated that they had fun and had felt excited during the events. It is possible that this slight decrease in positive expectations and consequent feelings was caused by the 10,8% of participants with disabilities who stated that they had felt nervous and shy during the inclusion opportunities.

5.3 HOW DO CHILDREN WITHOUT DISABILITIES DESCRIBE CHANGES IN THEIR FEELINGS TOWARD INCLUSION AFTER PARTICIPATION (QUALITATIVE DESCRIPTIONS)?

In the pre- and post-test questionnaires, several questions were included in order to supplement the quantitative data obtained from the participants. The participants with and without disabilities were requested to provide written reasons for answers given to selected questions. The written answers were then divided into categories according to key words, determined valuable for this research. These categories may assist with proving that several changes have occurred in the attitudes of the participants from prior to the inclusion opportunities to after completion of the events. The categories of meaning are presented in Tables 19 and 20.

According to Table 21 two new categories were established based on the post-test results. The category for enjoyment of the inclusion opportunities was strengthened by the addition of several new statements. This may indicate that the inclusion opportunities promoted positive feelings towards participation in the activities together with children with disabilities. The number of statements of acceptance of children with disabilities decreased slightly from the pre-test to the post-test. This may be as a result of the establishment of a new category, namely "learning experience". In this category several statements indicating that the participants found the inclusion opportunities to be a good learning experience, were included. Thus it can be suggested that the inclusion opportunities do provide children without disabilities with opportunities to learn more about children without disabilities. In the pre-test a number of statements were made that proved that the participants did not mind the prospect of participating in the activities together with the participants with disabilities. In the post-test, the number of statements that indicated that the participants did not mind decreased. This may be due to the creation of a new category of "friendship" based on the post-test results. This category contains a couple of statements, which show that the participants developed a degree of

friendship with the participants with disabilities. In the post-test the number of statements pertaining to perceiving the participants with disabilities as different decreased, thus proving that the inclusion opportunities may decrease perceptions of differences made by children without disabilities.

Table 19. Definitions of the categories of meaning from the pre-test for children without disabilities.

Category	Discussion	Examples of statements
Enjoyment: Key words that assisted with sorting of statements into this category were “excited”, “fun”, and “nice”.	In the post-test many participants placed emphasis on their feelings of enjoyment whilst participating together with children with disabilities.	<ul style="list-style-type: none"> • I feel excited because it makes the game different and more exciting. • I feel so happy to meet new people and have fun.
Acceptance: Any statement indicating an acceptance of participants with disabilities was included into this category.	Prior to the inclusion opportunities, these statements were made. This indicates a level of acceptance by the participants before the activities.	<ul style="list-style-type: none"> • I feel excited because they are the same (like me) and deserve to be treated the way I am.
Don't mind: Statements included into this category indicated that the participants did not mind participating with participants with disabilities.	Statements of this nature may occur because of previous exposure to children with disabilities.	<ul style="list-style-type: none"> • I don't mind because it does not affect me. • They won't bother me. • I don't mind.
Perceived as different: These statements indicate that the participants perceive the participants with disabilities as different.	This may be because of lack of exposure to children with disabilities or a lack of understanding of what disabilities are.	<ul style="list-style-type: none"> • I don't really mind them joining us, but it might make a difference the way we play or who (how) we can play.
Play: In this category the word “play” is used as a reference to which all statements containing the word were included into this category.	Several participants without disabilities display an interest in playing together with the participants with disabilities during the inclusion opportunities.	<ul style="list-style-type: none"> • I think I am going to have fun because it is nice to play with people who don't do thing that we do.

Table 20. Definitions of the categories of meaning from the post-test for children without disabilities.

Category	Discussion	Examples of statements
<p>Enjoyment:</p> <p>This category contains all statements, which indicate that the participants had fun and enjoyed themselves during the events.</p>	<p>The participants without disabilities placed emphasis on the feelings of happiness and enjoyment that they experienced during the inclusion opportunities.</p>	<ul style="list-style-type: none"> Well, we had fun. Loads! It's fun playing with them. We had fun and I think everyone enjoyed it.
<p>Learning experience:</p> <p>Statements made which indicate that the participants perceived the interaction as a learning experience were included into this category.</p>	<p>After attending the events, the participants without disabilities stated that they felt that they had learnt from the children with disabilities and expressed their interest in this.</p>	<ul style="list-style-type: none"> It was nice learning from them. It was interesting to see what they could do.
<p>Acceptance:</p> <p>These statements indicate an acceptance of the children with disabilities by the participants without disabilities.</p>	<p>Interaction between the participants during the events appears to have maintained a level of acceptance of the children with disabilities amongst those without.</p>	<ul style="list-style-type: none"> Because it's like a picnic with normal people. It is fun to be around people with disabilities.
<p>Don't mind:</p> <p>Statements included into this category indicated that the participants did not mind participating with participants with disabilities.</p>	<p>Few statements that indicated that the participants did not mind playing with the participants with disabilities remained after participation in the inclusion events.</p>	<ul style="list-style-type: none"> I don't mind. I just didn't mind. I just don't mind to do it again.
<p>Friendship:</p> <p>This is a new category for the post-test questionnaire and contains statements with regards to friendship and friends.</p>	<p>Some participants without disabilities indicated that they had developed friendships with several of the participants with disabilities whilst participating in the events.</p>	<ul style="list-style-type: none"> Because it was fun and I made lots of friends. I had lots of fun and it was nice to make friends.
<p>Perceived as different:</p> <p>These statements indicate that the participants perceive the participants with disabilities as different.</p>	<p>It would appear that after inclusion in the events, fewer participants without disabilities perceive the children with disabilities as different.</p>	<ul style="list-style-type: none"> They were like normal people. The only difference is that they have disabilities.

Table 21. Categories for qualitative results from the pre- and post-test for children without disabilities.

Pre-test		Post-test	
Categories	Qualitative statements (n)	Categories	Qualitative statements (n)
1. Enjoyment	11	1. Enjoyment	18
2. Acceptance	8	2. Learning experience	7
3. Don't mind	7	3. Acceptance	4
4. Perceived as different	6	4. Don't mind	2
5. Play	2	5. Friendship	2
		6. Perceive as different	1
	n = 34		n = 34

5.4 HOW DO CHILDREN WITH DISABILITIES DESCRIBE CHANGES IN THEIR FEELINGS TOWARD INCLUSION AFTER PARTICIPATION (QUALITATIVE DESCRIPTIONS)?

The categories of meaning found in the responses of children with disabilities are presented in Tables 22 and 23. According to the results taken from Table 24, several changes occurred with regards to categories that were established from results of the pre-and post-test questionnaires as well as the number of statements divided into each category respectively.

The number of statements made with regards to feelings of enjoyment and happiness increased slightly from the pre-test to the post-test results. A reason for this may be due to the participants with disabilities indicating that they perceived a degree of acceptance by the participants without disabilities (Category 4 in the post-test results). This category of perceived acceptance is new and was established from the qualitative statements made in the post-test questionnaires. It is an important result, as it does appear that the inclusion opportunities may assist with the acceptance of children with disabilities by children without disabilities. The number of statements made with regards to friendship has decreased and may be as a result of the increase in feelings of enjoyment or perceived acceptance. The number of statements made with regards to playing together with children without disabilities

remained the same for the pre- and post-test results. This reaffirms the perceptions of the children with disabilities towards playing together during the inclusion opportunities with the participants without disabilities. Prior to the inclusion opportunities, a number of participants with disabilities expressed that they felt unaccustomed towards participating in activities together with children without disabilities. This number was reduced after participation in the inclusion opportunities.

Table 22. Definitions of the categories of meaning from the pre-test for children with disabilities.

Category	Discussion	Examples of statements
<p>Enjoyment:</p> <p>Key words that assisted with sorting of statements into this category were “excited”, “fun”, and “nice”.</p>	<p>The high number of statements in this category indicates that the participants are inclined to expect feeling positive whilst participating in the inclusion events.</p>	<ul style="list-style-type: none"> • Ek is opgewonde om saam met hulle te speel (<i>I am excited to play together with them</i>). • Want ek gaan my enjoy (<i>I am going to enjoy myself</i>).
<p>Friendship:</p> <p>Any statement that includes words such as “friends”, “friendliness” or “friendship” was included into this category.</p>	<p>Some participants with disabilities expect to experience friendliness from or the development of new friendships with the participants without disabilities.</p>	<ul style="list-style-type: none"> • Cause you can meet new friends. • Want hulle is vriende (<i>Because they are friends.</i>) • Want hulle is ons se vriende (<i>Because they are our friends</i>).
<p>Play:</p> <p>In this category the word “play” is used as a reference to which all statements containing the word were included into this category.</p>	<p>Participants whose statements fall into this category associate play with inclusive activities prior to participation and tend to exhibit feelings relating to looking forward to such activities.</p>	<ul style="list-style-type: none"> • Want dit is lekker vir ’n mens om saam met hulle te speel (<i>Because it is nice to play together with them</i>). • Want ek hou van om met hulle te speel <i>Because I enjoy playing with them</i>).
<p>Unaccustomed:</p> <p>This category includes all statements that indicate that the participant with a disability is not used to being in an inclusive environment together with children without disabilities.</p>	<p>Several of the participants with disabilities have not previously had the opportunity to play with children without disabilities. Thus there appears to be a certain degree of reservation with regards to the inclusion opportunities.</p>	<ul style="list-style-type: none"> • Want ek ken hulle nog nie reg nie (<i>Because I don’t know them well yet</i>). • Omdat ek is nie gewoond om gewone kinders (<i>Because I am not used to normal children</i>).

Table 23. Definitions of the categories of meaning from the post-test for children with disabilities.

Category	Discussion	Examples of statements
<p>Enjoyment:</p> <p>As with the pre-test questionnaires, a number of statements were made which could be included into this category.</p>	<p>The participants with disabilities appear to feel positive about their experiences with participants without disabilities in the inclusion opportunities.</p>	<ul style="list-style-type: none"> • Fun to play with other children. • Dit is lekker om met ander kinders te speel (<i>It's nice to play with other children</i>).
<p>Play:</p> <p>Again this category contains all statements made by the participants which include the word "play".</p>	<p>The inclusion activities provide the participants with and without disabilities opportunities to play and thus interact with each other.</p>	<ul style="list-style-type: none"> • Dit was lekker om te speel (<i>It was nice to play</i>). • Dit was lekker om met die kinders te speel (<i>It was nice to play with the children</i>).
<p>Friendship:</p> <p>This category contains statements which include references to friends, friendliness and friendship.</p>	<p>After having participated in the inclusion activities several participants with disabilities seem eager to have further contact with the participants without disabilities.</p>	<ul style="list-style-type: none"> • Played with new friends. • Hulle is goeie maats met my (<i>They are good friends with me</i>).
<p>Perceived acceptance:</p> <p>This category occurs within the post-test results only and contains statements indicating that the participants with disabilities feel accepted.</p>	<p>The interaction of the participants with disabilities together with those without disabilities has lead to new feelings of perceived acceptance in the participants with disabilities.</p>	<ul style="list-style-type: none"> • Omdat ek is hier en ek sien hulle wil met my speel (<i>Because I am here and I see that they want to play with me</i>). • They helped me.
<p>Unaccustomed:</p> <p>This category includes any statements made which indicate that the participants feel unprepared for participation.</p>	<p>Some participants feel unaccustomed to participating together with participants without disabilities. Thus they are unsure of what to expect from the opportunities.</p>	<ul style="list-style-type: none"> • Ek het nie geweet hoe hulle is nie (<i>I didn't know what they were like</i>).

Table 24. Categories for qualitative results from the pre- and post-test for participants with disabilities.

Pre- test		Post-test	
Categories	Qualitative statements	Categories	Qualitative statements
1. Enjoyment	16	1. Enjoyment	19
2. Friendship	9	2. Play	8
3. Play	8	3. Friendship	5
4. Unaccustomed	4	4. Perceived acceptance	3
		5. Unaccustomed	2
	n = 37		n = 37

6. SUMMARY

6.1 SUMMARY OF PRE-TEST QUESTIONNAIRES FOR PARTICIPANTS WITH AND WITHOUT DISABILITIES

Prior to the inclusion opportunities the participants with and without disabilities exhibited a good understanding of what the word “disability” means to them. In the pre-test of participants without disabilities, results showed that the participants were highly involved in physical education classes at their schools (97,2%). Many had also experienced previous exposure (44,4%) to children with disabilities either in their classrooms or as friends. It was however found that the children with disabilities already in the non-LSEN schools were not completely involved in classroom and physical activities (only 27,8%). In LSEN schools, 100% of the participants did not participate in physical education and only a small percentage (34,2%) participated in extramural sports activities and thus children with disabilities are currently not receiving enough exposure to physical activities and sports at the LSEN schools.

The majority of participants without disabilities did not mind the idea of playing together, attending school together or playing sport together with children with disabilities (52,1%). A number of the participants also showed a high percentage of happiness towards having children with disabilities attend the same schools as them, playing sports together with them or just simply playing together with the participants

without disabilities (34,03%). A large percentage of participants with disabilities expressed positive feelings towards children without disabilities including feeling happy and excited whilst participating in sports (94,9%), attending the same schools (71,8%) and playing together (98,1%) with children without disabilities. The majority of participants without disabilities expected to feel happy and to have fun whilst participating in the inclusion opportunities (97,3%). Most participants with disabilities also expected to feel happy and have fun during the events, and a small percentage indicated that they expected to feel shy during the events (94,9%).

6.2 SUMMARY OF POST-TEST QUESTIONNAIRES FOR PARTICIPANTS WITH AND WITHOUT DISABILITIES

In the post-test questionnaires, the majority of participants without disabilities indicated that they felt excited and had fun whilst participating in the inclusion opportunities (92,2%). They also admitted to feeling more comfortable, happier and less nervous around the children with disabilities after the inclusion opportunities (100%). In the post-test for participants with disabilities, the majority of participants indicated that they felt excited and happy and had fun whilst participating in the inclusion events (82,4%). They also revealed that they felt more comfortable, happier and less nervous around children without disabilities (100%). All participants without disabilities indicated that they would like to participate in future inclusion opportunities together with children with disabilities (100%). Nearly all (97,3%) of the participants with disabilities agreed that they would like to participate in future inclusion opportunities together with children without disabilities. The majority of participants without disabilities indicated that they thought that children with disabilities should only sometimes (64,7%) be included into sports and physical activities. Various reasons were provided by the participants to support their responses, amongst which the risk of the children with disabilities getting hurt appeared to be common. A large percentage of the participants decided that children without disabilities should always (54,1%) participate in sport together with children with disabilities.

6.3 SUMMARY OF THE FINDINGS FROM THE COMPARISONS BETWEEN THE PRE-AND POST-TEST QUESTIONNAIRES

When the pre-and post-test questionnaire results were compared with each other, the following deductions were made: participants without disabilities felt more positive towards children with disabilities after (100%) having attended the inclusion opportunities than prior to (86,1%) the opportunities. The percentage of positive attitudes of children without disabilities towards children with disabilities remained the same (97,1%) prior to and after the inclusion opportunities. There was a slight decrease in the percentage of positive expectations (97,3%) of the children without disabilities towards the events, when compared to their feelings towards the events on the actual day of participation (94,2%).

Participants with disabilities felt less positive (84,6%) towards children without disabilities prior to the inclusion opportunities than after (94,6%). Thus there was an increase in positive attitudes after the inclusion opportunities. There was a 5% decrease in positive attitudes towards participating in sports together with children without disabilities from before (94,9%) until after (89,1%) inclusion in the opportunities. It was also found that prior to (94,9%) the inclusion opportunities the participants with disabilities felt more positive towards the opportunities than afterwards (89,2%).

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

This study was designed to determine the effectiveness of inclusion activities in influencing the attitudes of participants towards inclusion. The literature review revealed that positive experiences with physical activities (physical education and sport) can be used to promote interaction, co-operation, teamwork and acceptance among children with disabilities and children without disabilities. When the value of physical education is underestimated, physical activities are not utilised effectively in inclusive settings.

It was also concluded from the literature review that many different people are affected by practical inclusion opportunities and that without appropriate preparation and understanding, negative attitudes may develop. Among the people who are likely to be affected by inclusion are teachers, children with and without disabilities, administrators and parents.

A number of studies (Folsom-Meek & Rizzo, 2002; Horvat, 1990; Sideridis & Chandler, 1997; Kozub & Porretta, 1998; Jowsey, 1992; Tripp, French & Sherrill, 1995; Zeman & Block, 1996; Goodwin & Watkinson, 2000; Hutzler, Fliess, Chacham & Van den Auweele, 2002) have been conducted to determine the causes of negative attitudes as well as possible solutions to the problems which were identified. Many of these studies agree that negative attitudes form as a result of a lacking in facilities, support, services, education/training, experience, finances and time. These problems can be overcome with proper planning and implementation of specific programmes that will address the development of positive attitudes among all persons affected by the principle of inclusion.

1. CONCLUSIONS

This research has demonstrated that the combination of sports and physical activities in a carefully planned and presented format can promote positive attitudes towards inclusion and inclusive settings. The following conclusions can be drawn in relation to the general research questions:

What is the current situation regarding inclusion of children with disabilities in the schools represented in this study?

Results from this study show that a percentage of children with disabilities are currently being included into non-LSEN schools yet only a small portion participate in the classroom and physical education activities provided. At the LSEN schools, none of the children with disabilities are currently participating in physical education and a small percentage of the children participate in extramural physical activities.

What are the attitudes toward inclusion in physical activities held by children with and without disabilities prior to participation in formal inclusion experiences?

Prior to participation in the opportunities, a significant percentage of participants with and without disabilities indicated positive attitudes towards each other. Their expectations were positive and a large percentage of the children expressed their excitement and happiness with regards to participating in the events. Qualitative categories of enjoyment, play and friendship emerged from the pre-test results. The participants felt that participation in the inclusion activities would provide opportunities for enjoyment, playing together and making friends with each other.

What are the attitudes towards inclusion held by children with and without disabilities after formal inclusion experiences?

Results from the post-test questionnaires indicate an improvement in the number of participants with and without disabilities who feel positive towards each other. Participants indicated that their feelings had changed and that they felt happier, more comfortable and less nervous around each other. The majority of the participants with and without disabilities indicated that they would like to participate together in future inclusion opportunities. Qualitative categories that emerged from the results in the post-test questionnaires included regarding the opportunities as a learning experience for learning more about each other and feelings of perceived acceptance of the children with disabilities.

What were the attitudes of children without disabilities toward the principle of inclusion in sports and physical activities after participation in the inclusion opportunities?

Many participants stated that inclusion in sport and physical activities should always be the case whilst others stated that this should only sometimes be the case. Reasons for this included the possibility of the children with disabilities getting injured whilst participating or becoming disappointed if unable to complete tasks and activities successfully.

2. RECOMMENDATIONS

The following recommendations are made based on the experience gained in the presentation of the inclusion opportunities in this study:

- Each activity programme must include several adaptations of every task, which may be applied to participants who require something more or less challenging.
- Always ensure that there are enough assistants available to facilitate the participation of the children with disabilities when necessary.
- Ensure that all facilities are accessible to children with disabilities in terms of wheelchairs and other assistive devices.
- Explain the programme and its purpose to both the children with disabilities and children without disabilities so they know what to expect from participating in inclusion events prior to the actual events.
- Ensure that both the children with disabilities and the assistants/facilitators know what is required of them in terms of task completion, interaction and asking for/giving assistance.
- When working with children without disabilities in inclusion settings, describe to them fully how they offer peer assistance and how they can interact with children with disabilities.

- Explain to children without disabilities that certain tasks may be adapted to ensure the successful completion by a child with a disability.
- Orient the children without disabilities to the different kinds of disabilities as well as the movement restrictions caused by such disabilities.

The following recommendations are made In terms of the practical feature of delivering programmes of this nature:

- Always ensure that there are enough assistants to facilitate, and that the assistants are all familiar with the activities.
- Always have backup activities should the ones that have been prepared not work successfully.
- Always have first aid available in case of any injuries.
- Personal meetings are more successful and informative than telephonic communication, e-mails and postal letters. This means that several personal visits to each school are essential.
- Prepare translated versions of all questionnaires. Be prepared to translate questions and assist with answers during completion of the questionnaires by children.

3. SUMMARY

This study has demonstrated that it is possible to promote the development of positive attitudes toward inclusion among children with and without disabilities, through the means of participation in a variety of physical activities.

APPENDIX A

A. PRE-TEST QUESTIONNAIRE FOR ABLE-BODIED PARTICIPANTS

Please answer the following questions

1. What is the name of your school?

2. How old are you? _____

3. What grade are you in? _____

4. Are you a boy? Yes _____ No _____

5. Are you a girl? Yes _____ No _____

6. Write down what you think the word 'disability' means:

7. Do you do physical education at your school?

Yes _____ No _____

8. Do you have any friends or classmates who have problems moving, running and walking the same way you do or who have to move around in a wheelchair or with crutches or a guidedog?

Yes _____ No _____

9. Do these classmates take part in everyday classroom activities?

Yes _____ No _____

10. Do these classmates take part in physical education classes?

Yes _____ No _____

Tick the lines that best describe how you feel:

11. How do you feel about children with disabilities?

- Don't mind _____
- Irritated _____
- Shy _____
- Happy _____
- Scared _____

12. How do you feel about having children with disabilities attending the same school as you?

- Nervous _____
- Happy _____
- Angry _____
- Irritated _____
- Shy _____
- Don't mind _____
- They should attend a different school _____

13. How do you feel about children with disabilities taking part in the same sports as you?

- Excited _____
- Don't mind _____
- Irritated _____
- Nervous _____
- Happy _____
- Angry _____
- They should take part in separate events _____

14. Give reasons for your answer to **question 13**:

Tick the lines that best describe how you feel:

15. How do you feel about playing together with children who have disabilities?

- Nervous _____
- Excited _____
- Don't mind _____
- Angry _____
- Happy _____
- Scared _____

16. What do you expect from taking part in today's activities together with children with disabilities?

- To have fun _____
- To feel confused _____
- To feel shy _____
- To feel irritated _____
- To feel nervous _____
- To feel happy _____
- To feel angry _____

17. Write down reasons for your answers to **question 16**:

18. Write down any comments that you want to make about disabilities and children who have them:

Thank you for filling in the questionnaire

B. POST-TEST QUESTIONNAIRE FOR ABLE-BODIED PARTICIPANTS

Please answer the following questions

1. What is the name of your school?

2. How old are you? _____

3. What grade are you in? _____

4. Are you a boy? Yes _____ No _____

5. Are you a girl? Yes _____ No _____

Tick the lines that best describe how you feel:

6. How did you feel today while you were taking part in the picnic/games/dance/sports day?

- I had fun _____
- I felt nervous _____
- I got irritated _____
- I was excited _____
- I felt angry _____
- I was shy _____

7. If possible write down reasons for your answer to **question 6:**

8. How did you feel about picnicking/playing games/dancing/playing sports together with children with disabilities?

- I was irritated _____
- I didn't mind _____
- I had fun _____
- I was shy _____
- I was excited _____

9. Write down reasons for your answer to **question 8**:

Tick the best answer:

10. Do you think that your feelings towards children with disabilities have changed after attending the picnic/games/dance/sports day?

Yes _____ No _____

Tick the lines that best describe how your feelings have changed:

- I feel more comfortable _____
- I feel less nervous _____
- I feel more uncomfortable _____
- I feel less irritated _____
- I feel more happy _____
- I feel more angry _____

11. Would you like to attend another picnic/games/dance/sports day together with children with disabilities again?

Yes _____ No _____

12. Write down reasons for your answer to **question 11**:

Tick the lines that best describe how you feel:

13. How do you feel around children with disabilities now?

- I don't mind _____
- I feel shy _____
- I feel excited _____
- I feel angry _____
- I feel nervous _____
- I feel happy _____

14. Do you think that children with disabilities should participate together with children without disabilities?

- Always _____
- Never _____
- Sometimes _____

15. Write down reasons for your answer to **question 14**:

16. Do you think that children with disabilities should attend separate schools?

- Always _____
- Never _____
- Sometimes _____

17. Write down reasons for your answers to **question 16**:

Thank you for filling in the questionnaire

C. PRE-TEST QUESTIONNAIRE FOR PARTICIPANTS WITH DISABILITIES

Please answer the following questions

1. What is the name of your school?

2. How old are you? _____

3. What grade are you in? _____

4. Are you a boy? Yes _____ No _____

5. Are you a girl? Yes _____ No _____

6. Write down what you understand about having a 'disability':

7. Do you do physical education classes at your school?

Yes _____ No _____

8. Are you able to take part in all the physical education and classroom activities that your teachers give you to do?

Yes _____ No _____

9. Do you take part in sports after school?

Yes _____ No _____

10. Do you have any friends who do not have a disability or movement problem?

Yes _____ No _____

Tick the lines that best describe how you feel:

11. How do you feel around children who do not have a disability?

- Don't mind them _____
- Irritated _____
- Shy _____
- Excited _____
- Nervous _____
- Angry _____
- Sad _____

12. How would you feel about attending a school where there are children who do not have a disability?

- Scared _____
- Don't want to _____
- Excited _____
- Irritated _____
- I prefer my own school _____
- Shy _____
- I don't mind _____

13. How would you feel about taking part in sports together with children who do not have a disability?

- Don't want to _____
- I don't mind _____
- Nervous _____
- Excited _____
- Irritated _____

- Shy _____

14. Write down reasons for your answer to **question 13**:

Tick the lines that best describe how you feel:

15. How do you feel about playing with children who do not have a disability?

- Nervous _____
- Don't mind _____
- Excited _____
- Irritated _____
- Angry _____
- Happy _____
- Scared _____

16. What do you expect from taking part in today's activities together with children who do not have a disability?

- To have fun _____
- To feel confused _____
- To feel shy _____
- To feel irritated _____
- To feel nervous _____
- To feel happy _____
- To feel angry _____

17. Write down reasons for your answers to **question 16**:

18. Write down any comments that you want to make about disabilities and children who do not have disabilities:

Thank for filling in the questionnaire

D. POST-TEST QUESTIONNAIRE FOR PARTICIPANTS WITH DISABILITIES

Please answer the following questions

1. What is the name of your school?

2. How old are you? _____

3. What grade are you in? _____

4. Are you a boy? Yes _____ No _____

5. Are you a girl? Yes _____ No _____

Tick the lines that best describe how you feel:

6. How did you feel today while you were taking part in the picnic/games/dance/sports day?

- I had fun _____
- I felt nervous _____
- I got irritated _____
- I was excited _____
- I felt angry _____
- I was shy _____

7. If possible write down reasons for your answer to **question 6:**

8. How did you feel about picnicking/playing games/dancing/playing sports together with children without disabilities?

- I was irritated _____
- I didn't mind _____
- I had fun _____
- I was shy _____
- I was excited _____

9. Write down reasons for your answer to **question 8**:

Tick the best answer:

10. Do you think that your feelings towards children without disabilities have changed after attending the picnic/games/dance/sports day?

Yes _____ No _____

Tick the lines that best describe how your feelings have changed:

- I feel more comfortable _____
- I feel less nervous _____
- I feel more uncomfortable _____
- I feel less irritated _____
- I feel more happy _____
- I feel more angry _____

11. Would you like to attend another picnic/games/dance/sports day together with children without disabilities again?

Yes _____ No _____

12. Write down reasons for your answer to **question 11**:

Tick the lines that best describe how you feel:

13. How do you feel around children without disabilities now?

- I don't mind _____
- I feel shy _____
- I feel excited _____
- I feel angry _____
- I feel nervous _____
- I feel happy _____

14. Do you think that children without disabilities should participate together with children with disabilities?

- Always _____
- Never _____
- Sometimes _____

15. Write down reasons for your answer to **question 14**:

16. Do you think that children without disabilities should attend separate schools?

- Always _____
- Never _____
- Sometimes _____

17. Write down reasons for your answers to **question 16**:

Thank you for filling in the questionnaire

E. TRANSLATED PRE-TEST QUESTIONNAIRE FOR PARTICIPANTS WITH DISABILITIES

Antwoord asseblief die volgende vrae

1. Wat is die naam van jou skool?

2. Hoe oud is jy? _____

3. Watter graad is jy in? _____

4. Is jy 'n seun? Ja _____ Nee _____

5. Is jy 'n dogter? Ja _____ Nee _____

6. Skryf neer wat dit vir jou bedoel om gestremd te wees:

7. Neem jy deel in fisieke aktiwiteite by jou skool?

Ja _____ Nee _____

8. Kan jy deelneem in alle fisieke aktiwiteite en klaskamer aktiwiteite wat jou onderwysers vir jou gee om te doen?

Ja _____ Nee _____

9. Neem jy deel in sport na skool?

Ja _____ Nee _____

10. Het jy enige vriende wat nie gestremd is nie of wat nie 'n beweging probleem het nie?

Ja _____ Nee _____

Merk die lyne wat jou gevoelens goed beskryf:

11. Hoe voel jy as daar kinders om jou is wat nie 'n gestremdheid het nie?

- Gee nie om nie _____
- Geirriteerd _____
- Skaam _____
- Opgewonde _____
- Senuweeagtig _____
- Kwaad _____
- Treurig _____

12. Hoe sal jy voel om na 'n skool toe te gaan waar daar kinders is wat nie gestremd is nie?

- Bang _____
- Ek wil nie _____
- Opgewonde _____
- Geirriteerd _____
- Ek hou meer van my eie skool _____
- Skaam _____
- Ek gee nie om nie _____

13. Hoe sal jy voel om deel te neem in sport saam met kinders wat nie gestremd is nie?

- Ek wil nie _____
- Ek gee nie om nie _____
- Senuweeagtig _____
- Opgewonde _____

- Geirriteerd _____
- Skaam _____

14. Skryf neer redes vir jou antwoord na **vraag 13**:

Merk die lyne wat jou gevoelens goed beskryf:

15. Hoe dink jy sal jy voel om saam met kinders te speel wat nie gestremd is nie?

- Senuweeagtig _____
- Ek gee nie om nie _____
- Opgewonde _____
- Geirriteerd _____
- Kwaad _____
- Gelukkig _____
- Bang _____

16. Wat verwag jy van die piekniek, speletjies, dans en sports dag en hoe dink jy sal jy voel?

- Om pret te hê _____
- Om deurmekaar te voel _____
- Om skaam te voel _____
- Om geirriteerd te voel _____
- Om senuweeagtig te voel _____
- Om gelukkig te voel _____
- Om kwaad te voel _____

17. Skryf neer redes vir jou antwoord na **vraag 16**:

18. Skryf neer enige kommentaar wat jy wil lewer met betrekking tot gestremdheid en kinders wat nie gestremd is nie:

Dankie dat jy die vraagstuk ingevul het

F. TRANSLATED POST-TEST QUESTIONNAIRE FOR PARTICIPANTS WITH DISABILITIES

Antwoord asseblief die volgende vrae

1. Wat is die naam van jou skool?

2. Hoe oud is jy? _____

3. Watter graad is jy in? _____

4. Is jy 'n seun? Ja _____ Nee _____

5. Is jy 'n dogter? Ja _____ Nee _____

Merk die lyne wat jou gevoelens die beste beskryf:

6. Hoe het jy gevoel vandag terwyl jy deelgeneem het in die piekniek, speletjies, dans, sport dag?

- Ek het pret gehad _____
- Ek het senuweeagtig gevoel _____
- Ek het geirriteerd geword _____
- Ek was opgewonde _____
- Ek het kwaad gevoel _____
- Ek was skaam _____

7. Gee asseblief redes vir jou antwoord na **vraag 6**:

8. Hoe het jy gevoel om saam met gewone kinders piekniek te hou, speletjies te speel, te dans, sport te speel?

- Ek was geirriteerd _____
- Ek het nie om gegee nie _____
- Ek het pret gehad _____
- Ek was skaam _____
- Ek was opgewonde _____

9. Gee redes vir jou antwoord na **vraag 8**:

Merk die beste antwoord:

10. Dink jy dat jou gevoelens vir gewone kinders verander het na die piekniek, speletjies, dans, sport dag?

Ja _____ Nee _____

Merk die lyne wat beskryf hoe jou gevoelens verander het:

- Ek voel meer gemaklik _____
- Ek voel minder senuweeagtig _____
- Ek voel meer ongemaklik _____
- Ek voel minder geirriteerd _____
- Ek voel meer gellukkig _____
- Ek voel meer kwaad _____

11. Sal jy graag nog 'n piekniek, speletjies, dans, sports dag toe wil gaan saam met gewone kinders?

Ja _____ Nee _____

12. Gee redes vir jou antwoord na **vraag 11**:

Merk die lyne wat jou gevoelens beskryf:

13. How voel jy rondom gewone kinders nou?

- Ek geen nie om nie _____
- Ek voel skaam _____
- Ek voel opgewonde _____
- Ek voel kwaad _____
- Ek voel senuweeagtig _____
- Ek voel gelukkig _____

14. Dink jy dat gewone kinders saam met gestremde kinders moet deelneem?

- Altyd _____
- Nooit _____
- Soms _____

15. Gee redes vir jou antwoord na **vraag 14**:

16. Dink jy dat gewone kinders na ander skole toe moet gaan?

- Altyd _____
- Nooit _____
- Soms _____

17. Gee redes vir jou antwoord na **vraag 16**:

Dankie dat jy die vraagstuk ingevul het

APPENDIX B

Navrae
Enquiries
IMibuzo
Telefoon
Telephone
IFoni
Faks
Fax
IFeksi
Verwysing
Reference
ISalathiso

Dr Ronald Cornelissen

(021) 467-2286

(021) 425-7445

20030423-0022



Wes-Kaap Onderwysdepartement

Western Cape Education Department

ISebe leMfundo leNtshona Koloni

Ms Cathy McMurray
20 Grieve Crescent
Aurora
DURBANVILLE
7550

RESEARCH PROPOSAL: INCLUSION OPPORTUNITIES TO ASSESS ATTITUDES OF ABLE-BODIED AND DISABLED PARTICIPANTS TOWARDS THE PRINCIPLE OF INCLUSION.

Your application to conduct the above-mentioned research in schools in the Western Cape has been approved subject to the following conditions:

1. Principals, educators and learners are under no obligation to assist you in your investigation.
2. Principals, educators, learners and schools should not be identifiable in any way from the results of the investigation.
3. You make all the arrangements concerning your investigation.
4. Educators' programmes are not to be interrupted.
5. The Study is to be conducted from **10th May 2003 to 31st May 2003.**
6. Should you wish to extend the period of your survey at the school(s), please contact Dr R. Cornelissen at the contact numbers above quoting the reference number.
7. A photocopy of this letter is submitted to the principal of the school where the intended research is to be conducted.
8. Your research will be limited to the following Schools: **Astra (Montana), Eros (Athlone), Paarl (Brackenfell), Vista Nova (Rondebosch).**
9. A brief summary of the content, findings and recommendations is provided to the Director: Education Research.
10. The Department receives a copy of the completed report/dissertation/thesis addressed to:

**The Director: Education Research
Western Cape Education Department
Private Bag 9114
CAPE TOWN
8000**

We wish you success in your research.

Kind regards.

Signed: Ronald S. Cornelissen
for: **HEAD: EDUCATION**

APPENDIX C

Dear Parents/guardians,

This letter comes to you with the permission of the Western Cape Education Department. We are conducting a Masters' thesis study, which is being run independently of your child's school.

We invite your child to participate in a variety of activities (games etc.) where learners with and without disabilities will have the opportunity to play together.

The aim of these events is to determine their attitudes towards including children with/without disabilities in physical activities. Inclusion is known as the process whereby children with disabilities are introduced into regular classroom and physical education settings.

All events will be held at the Department of Sport Science, University of Stellenbosch (Coetzenberg, between athletics stadium and rugby stadium). Students specialising in Adapted Physical Activities will assist during the opportunity.

The events are as follows:

1. Picnic Day – Saturday 10 May 2003 - 09:00 – 11:45
2. Games Day – Saturday 17 May 2003 – 09:00 – 11:45
3. Dance/Aerobics Day – Saturday 24 May 2003 – 09:00 – 11:45
4. Sports Day – Saturday 31 May 2003 – 09:00 – 11:45

To ensure that your child's opinion is included in the research, we will request all participants to complete a pre-and-post activity questionnaire. This will be an anonymous questionnaire and once the results of the overall study have been completed, a summary thereof will be sent to the school, which will be available for you to read.

Should you have any further questions with regards to the research, please do not hesitate to contact me personally at:

Tel (H): (021) 976 8356

Tel (Cell): 082 871 7656

Please complete the attached consent form and send it back to the school to:

I thank you for your support.

Yours sincerely

Cathy McMurray (HonsB Sport Science)

Masters student – Department of Sport Science

University of Stellenbosch

Study leader: Corné Rossouw

I,, hereby give permission for my child,
....., to participate in the above-mentioned
study. By giving my permission I also declare that I will not hold the study
organiser or the Department of Sport Science, University of Stellenbosch
responsible for any injury/damage/loss to my child and his/her personal
belongings.

Date: _____

Signature: _____

Tel (W): _____

Tel (H): _____

Tel (Cell): _____

APPENDIX D

A. PICNIC DAY OUTLINE

PREPARED ACTIVITIES

1. Sack Races

- Participants are divided into smaller teams depending on the numbers in attendance
- Participants compete in relay races with sacks
- Children with disabilities can control sack in alternative way e.g. wear sack over one limb, on head etc.
- The participants can choose to hop, walk, run etc. in order to complete the laps

2. Potato and Spoon Races

- Potatoes are to be carried on spoons in relay format
- Children with disabilities can tie the potato to the spoon with string/elastic so that they can tie the spoon to the hand/crutch/arm of wheelchair with string or elastic etc.
- Each child has own potato and spoon and can complete the task at his or her own pace

3. Egg and Spoon Races

- Marshmallow eggs will be used instead of real eggs
- The same format applies as that of the potato and spoon race
- The same methods of apparatus management may be applied as that of the potato and spoon race
- Eggs may be eaten when race is over

4. Doctor Doctor

- All participants form a circle together
- Everyone puts their right hand into the circle and takes hold of someone else's right hand with their hand
- Everyone then puts left hand into circle and takes hold of someone else's left hand in the circle
- Someone is nominated to try and undo the "knot" that has been created
- No-one may let go of the hands they are holding

5. Bowling

- Different size balls are bowled at beacons e.g. handball, tennis ball, soccer ball, basketball
- Can bowl at beacons, through beacons, try knocking beacons over etc.

6. Piggy in the Middle

- This game can be played with beanbags, tennis balls, handballs etc.
- Outside throwers can stand at various distances
- Balls may be thrown, rolled or bounced to each other
- Piggy in the middle must try and intercept the balls as they pass by
- An assistant should control rotation of the piggy so as to ensure that everyone has a chance to be in the middle

7. Obstacle Course

- An obstacle course will be set up at the beginning of the event and will serve as the icebreaker for the event
- Apparatus such as benches, mats, ropes, beacons, tennis balls, beanbags and ropes will be used to create the course
- Two identical courses will be created and the participants will be divided into two groups, one male and one female
- Where necessary, able-bodied children will be encouraged to assist the children with disabilities through the course successfully

B. GAMES DAY OUTLINE

PREPARED ACTIVITIES

1. Pass and Turn

- This game must be completed in groups
- It is a ball passing exercise
- Use handballs or basketballs
- Participants will stand in a line and pass the ball forwards over their heads or through their legs as is necessary with regards to their disability
- They can also pass the ball from side to side and backwards instead of forwards

2. Keep Your Field Clean

- This game will also take place in groups
- Two teams vs. each other or smaller version of 2x2 in reduced field
- Use upturned benches as field markers to divide the teams
- Must throw beanbags into opponents 'field' and at the same time try to keep your side of the 'field' clean of beanbags
- So retrieve beanbag and throw back into opposition half
- May be dangerous game if child is hit in face/eye with bag so assistants will be on hand to keep it safe

3. Hit the Beacon

- The benches stay the same (upturned as field dividers)
- Throw tennis balls into opponents half and try to hit beacons lined up behind the opponents
- Opponents must defend their beacons and try to prevent them getting hit whilst at the same time trying to throw the tennis balls back at their opponents and hit their beacons in return
- Can also use beanbags and handballs
- May be dangerous game if throws are hard and wild to assist and keep it safe

4. Target Games

- There will be targets pasted on the walls
- The participants will work in mixed (1 disabled and 1 able-bodied) pairs
- They will start by throwing basketballs at the targets
- They will progress down to handballs and then tennis balls (apparatus gets smaller as skill increases)

- They can vary their throwing styles e.g. overarm, underarm (difficulty progression)
- They can also throw facing the target or with their backs to the target (difficulty progression)

5. Potato and Spoon Race

- The participants will work in combined pairs again
- Each participants will be given a potato and plastic spoon
- The able-bodied child assists disabled child if necessary
- There will be elastic bands and stocking ties available to tie the spoons to the arms or to tie the potatoes to the spoons (only if necessary e.g. cannot hold spoon etc.)
- One can also ask the children to try and carry potato and spoon with their mouths (difficulty progression)

6. Piggy in the Middle (middelmannetje)

- The participants will work in groups of threes (vary the apparatus)
- Start with beanbags, then progress to handballs and tennis balls (difficulty progression)

7. Stuck in the Mud

- Working in small groups
- One person is on and the rest must evade him/her
- When they are touched, they must freeze until freed by their team-mates
- Can vary ways to be freed e.g. two taps on shoulder, high five, turn in circle twice
- This activity has the potential to be fun

C. DANCE DAY OUTLINE

PREPARED ACTIVITIES

TYPES OF DANCE MOVEMENTS:

- Make your own movements to music
- Move the way you feel and use expressions
 - angry
 - sad
 - happy
 - shy
 - excited
 - nervous
 - scared
 - shocked
- Make movements that make your body stretch
- Swinging movements
- Bouncy movements
- Crawling movements
- Skipping movements
- Quiet, soft, floppy and loose movements
- Loose and tight positions
- Pairs that make mirror-images of each other in other words: copy each others movements
- Pairs that make different movements to each other – try and do the opposite to each other
- Group work – one person in group makes the movements and the others copy it
- One person is the “group leader” and the others follow him or her whilst performing the same movements
- Movements are made with the hands and arms
- Movements are made with the head
- Movements are made with the feet and legs
- Movements are made together with shakers, balls, hoops and beanbags – anything that makes a sound/noise
- Alternative instruments can be used e.g. newspapers and tin cans
- Dance to the drumming of feet or clapping of hands

} Feelings and emotions

- Dance with your shadow/reflection in the mirror – watch yourself in the mirror and move with yourself. Try using the body in a new way.
- Symmetric use of the body – i.e. what one side of the body does, so must the other side
- Mimic animals, objects e.g. elephants and cars, lions and mice, snakes and rabbits

D. SPORTS DAY OUTLINE

PREPARED ACTIVITIES

SPORTS

- Soccer
- Tennis
- Basketball
- Netball
- Cricket
- Bowling

1. Soccer

- Divide into mini teams
- Fields are made smaller or larger depending in availability of space
- | | | |
|---|---|---------------------------------|
| <ul style="list-style-type: none">• Can bounce the ball• Can roll the ball• Can bump the ball• Can kick the ball | } | How to pass and propel the ball |
|---|---|---------------------------------|
- Participants score by getting the ball between goal beacons/through hoops etc.

2. Tennis

- Divide groups into pairs
- Use racquets or tennis bats
- Play mini tennis against each other in designated areas

3. Basketball

- Boys and girls can play Basketball or girls can play Netball
- Use adapted bouncy balls (soft, spongy balls)
- | | | |
|--|---|---------------------------------|
| <ul style="list-style-type: none">• Can bounce the ball• Can carry the ball on lap• Can roll the ball• Can bounce pass the ball | } | How to pass and propel the ball |
|--|---|---------------------------------|
- Participants can shoot goals through a hoop held up in the air by a team-mate or assistant
- Participants are divided into mini combined teams and will play in a mini court

4. Cricket

- Mini matches
- Participants will be divided into two teams
- 1 batsman
- 1 bowler
- The rest of the team are fielders
- Can use 2 hands to catch the ball if the ball gives one bounce
- Can use 1 hand to catch the ball if the ball gives two bounces
- Batsmen will be alternated from the fielders

REFERENCES

- BRANFORD, W. (1992). *The South African pocket Oxford dictionary*. Cape Town: Oxford University Press.
- CRAFT, D. & LIEBERMAN, L. (2000). Visual impairments and deafness. In J.P. WINNICK (Ed.), *Adapted Physical Education and Sport* (3rd Ed.). (pp.159-180). Illinois: Human Kinetics Publishers.
- DEPARTMENT OF EDUCATION (2001). *Education white paper: Building an inclusive education and training system*. Pretoria: ELSEN Directorate.
- DOWNS, P. (1995). *An introduction into inclusive practices. Willing and able: PE and sport for young people with disabilities*. Australia: Australian Sports Commission.
- FOLSOM-MEEK, S. & RIZZO, T. (2002). Validating the physical educators' attitude toward teaching individuals with disabilities III (PEATID III) survey for future professionals. *Adapted Physical Activity Quarterly*, 19:141-154.
- FOWLER, F. & FOWLER, H. (1969). *The pocket Oxford dictionary of current English*. Oxford: Clarendon Press.
- GOLDHAWK, P. (1996). Sport for the disabled. In National Sports Council (Ed.), *Vision for sport: Implementing the vision*. (pp. 1 – 10). Johannesburg: Vision for sport management committee.
- GOODMAN, S. (1993). *Coaching athletes with disabilities: General principles*. Australia: Australian Sports Commission.
- GOODMAN, S.; LEE, K. & HEIDT, F. (1996). *Coaching wheelchair athletes*. Australia: Australian Sports Commission.
- GOODWIN, D. & WATKINSON, E. (2000). Inclusive physical education from the perspective of students with physical disabilities. *Adapted Physical Activity Quarterly*, 17:144-160.
- HAY, J. (2003). Implementation of the inclusive education paradigm shift in South African education support services. *South African Journal of Education*, 23(2): 135-138.
- HERBERT, B. & BRESSAN, E. (1995). The value of sport and physical activity programmes for children with physical disabilities. In E. KATZENELLENBOGEN (Ed.), *The importance of children's participation in physical and sporting activities*. (pp. 156-163). Stellenbosch: Book Publications.
- HORVAT, M. (1990). *Physical education and sports for exceptional students*. Iowa: Wm. C. Brown Publishers.

HUTZLER, Y., FLIESS, O., CHACHAM, A. & VAN DEN AUWEELE, Y. (2002). Perspectives of children with physical disabilities on inclusion and empowerment: Supporting and limiting factors. *Adapted Physical Activity Quarterly*, 19:300-317.

JEWETT, A. & BAIN, L. (1985). *The curriculum process in physical education*. Georgia: Wm. C. Brown Publishers.

JOWSEY, S. (1992). *Can I play too? Physical education for physically disabled children in mainstream schools*. London: David Fulton Publishers.

KARPER, W. (1995). Problems with elementary school physical education. *Palaestra*, 11(3): 33-35.

KELLY, L. (2000). Spinal cord disabilities. In J.P. WINNICK (Ed.), *Adapted Physical Education and Sport (3rd Ed.)*. (pp.215-234). Illinois: Human Kinetics Publishers.

KOZUB, F. & PORETTA, D. (1998). Interscholastic coaches' attitudes toward integration of adolescents with disabilities. *Adapted Physical Activity Quarterly*, 15:328-344.

KOZUB, F.; SHERBLOM, P. & PERCY, T. (1999). Inclusion paradigms and perspectives: A stepping stone to accepting learner diversity in physical education. *QUEST*, 51: 346-354.

KREBS, P. (2000). Mental retardation. In J.P. WINNICK (Ed.), *Adapted Physical Education and Sport (3rd Ed.)*. (pp.111-126). Illinois: Human Kinetics Publishers.

KUDLÁÈEK, M., VÁLKOVÁ, H., SHERRILL, C., MYERS, B. & FRENCH, R. (2002). An inclusion instrument based on planned behaviour theory for prospective physical educators. *Adapted Physical Activity Quarterly*, 19:280-299.

LIEBERMAN, L. & HOUSTON-WILSON, C. (2002). *Strategies for inclusion: A handbook for physical educators*. Illinois: Human Kinetics Publishers.

MELOGRANO, V. (1996). *Designing the physical education curriculum (3rd Ed.)*. Illinois: Human Kinetics Publishers.

MICHAELIS, J. (1988). *Social studies for children. A guide to basic instruction*. New Jersey: Simon and Schuster Publishers.

MUSHETT, C.; WYETH, D. & RICHTER, K. (1995). Cerebral palsy. In B. GOLDBERG (Ed.), *Sports and exercise for children with chronic health conditions: guidelines for participation from leading authorities*. (pp. 123-135). Illinois: Human Kinetics Publishers

NATIONAL COMMISSION ON SPECIAL NEEDS IN EDUCATION AND TRAINING & NATIONAL COMMITTEE FOR EDUCATION SUPPORT SERVICES (1997). *Education for all from "Special needs and support" to developing quality education for all learners. Public discussion document*. Bellville: The secretariat.

PANGRAZI, R. & DARST, P. (1997). *Dynamic physical education for secondary school students (3rd Ed.)*. Boston: Allyn and Bacon.

PORRETTA, D. (2000). Cerebral palsy, stroke, and traumatic brain injury. In J.P. WINNICK (Ed.), *Adapted Physical Education and Sport (3rd Ed.)*. (pp.181-198). Illinois: Human Kinetics Publishers.

PORRETTA, D. (2000). Amputations, dwarfism and Les Autres. In J.P. WINNICK (Ed.), *Adapted Physical Education and Sport (3rd Ed.)*. (pp. 199-214). Illinois: Human Kinetics Publishers.

SHERMAN, A. (1996). Mainstreaming: Where did we fail? *Palaestra*, 12(2): 25-27.

SHERRILL, C. (1993). *Adapted physical activity, recreation and sport: Crossdisciplinary and lifespan*. Iowa: Wm. C. Brown Publishers.

SIDERIDIS, G. & CHANDLER, J. (1997). Assessment of teachers attitudes toward inclusion of students with disabilities: A confirmatory factor analysis. *Adapted Physical Activity Quarterly*, 14:51-64.

TRIPP, A., FRENCH, R. & SHERRILL, C. (1995). Contact theory and attitudes of children in physical education programs toward peers with disabilities. *Adapted Physical Activity Quarterly*, 12:323-332.

VAN DEVENTER, K. (2002). Quality physical education and partnership concept. *South African Journal for Research in Sport, Physical Education and Recreation*, 24(2): 101-119.

WEAVER, T. (1997). Integrating students with disabilities with general education students in various physical education activities at the middle school level. *Palaestra*, 13(3): 26-45.

ZEMAN, R. & BLOCK, M. (1996). Including students with disabilities in regular physical education: Effects on non-disabled children. *Adapted Physical Activity Quarterly*, 13:38-49.